

AN
ENQUIRY
INTO THE
NATURE, RISE, and PROGRESS
OF THE
FEVERS MOST COMMON IN LONDON;

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AN
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INTO THE
NATURE, RISE, and PROGRESS
OF THE
FEVERS MOST COMMON IN LONDON,
AS THEY HAVE SUCCEEDED EACH OTHER
IN THE DIFFERENT SEASONS FOR THE
LAST TWENTY YEARS.
WITH
SOME OBSERVATIONS
ON THE
BEST METHOD OF TREATING THEM.

By WILLIAM GRANT, M.D.

L O N D O N :

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ADVERTISEMENT.

THE method of curing diseases, like all other branches of natural philosophy, can only be improved by experience; of course, the physician who shall give a faithful description of the diseases he hath attended, the methods used for their cure, and the various success attending these methods; by thus assisting the unexperienced practitioner, and by adding his own experience to that of others, will deserve well of mankind.

This consideration has induced me to offer the following sheets to the public, in which I have endeavoured to describe the specific differences of fevers at different seasons of the year, and the different treatment required for the cure of diseases nominally the same;

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fame; with some occasional observations on the fatal effects of the general practice of treating them indiscriminately. And I am not without hope, that by offering to my brethren such hints as may lead them to a discriminating knowledge of the diseases they attempt to cure, I shall, in some degree, check the mischief of erroneous practice in its source.

If I shall be found to have contributed to this desirable end, my labour will be overpaid; and, with the consciousness of having intended it, I cannot be wholly disappointed of my reward.

WHITE LION COURT,
CORNHILL,
DECEMBER 25, 1770.

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Want of leisure to revise this work before it was sent to press, hath occasioned many inaccuracies of stile, especially in the cases hastily copied from my journal-book, which the candid reader is requested to overlook; and also to correct with his pen the following errors of the press, among other less material

E R R A T A.

- Page 14. Line 8. *For τριταιοφναι, read τριταιοφνεις, and, for hemitritia, hemitritææ.*
22. 15. *For τριταιοφναι, read τριταιοφνεις.*
8, and 9. From bottom, *read προκαταρλιμαλ and περιγυμναλ.*
23. 9. From the bottom, *for febrilis, read febrile.*
24. 10. *For horripelatio, read horripilatio.*
65. 18. *For Tuesday, read Thursday.*
78. 2. *For spurea, read spuria.*
93. 6. Note, *for assimulation, read assimilation.*
99. 24. *For glans, read glands.*
106. 3. *For solid, read solids.*
116. 2. *For ptisannis, read ptisans.*
118. 10. *For phlegmonoidis, read phlegmonoides.*
181. 6. From bottom, *for alexiphermic, read alexipharmic.*
183. 15. From bottom, note, *for inconsiderable, read considerable.*
191. 11. From bottom, *for somented, read fermented.*
206. 9. *For two hundred, read three hundred.*
207. 8. From bottom, *for tonnic, read tonic.*
228. 6, & 7. From bottom, *for Lacunum, read Lucanum.*
239. 3. From bottom, *for alcatious, read alkaline.*
249. 6. *For clyrical, read clinical.*
251. 1. *For frequent, read frequently.*
258. 7. *Dele both.*
275. 18. *For increffit, read increfcit.*
279. 10. From bottom, and elsewhere, *for majus, read magis.*
292. 9. *For evacuations, read eructations.*
295. 10. From bottom, *for chalebeate, read chalybeate.*
296. 13. *For anthelminthies, read anthelminthics.*
301. 7. *For meteorysimus, read meteorismus.*
329. 10. From bottom, *for comma, read coma.*
330. 11. *For a direct, read an erect.*
251. 9. *For of owzing, read in owzing.*
359. 1. *For but endeavour, read and induce him.*
365. 10. *For eruptions, read defections.*
25. *For athritis, read arthritis.*

INTRODUCTION.

“**T**HAT there is no curing diseases
“ by art, without first knowing how
“ they are to be cured by nature,” was
the observation of an ancient physician of
great eminence, who very early in my life
superintended my medical education, and
by this axiom all my studies and my practice
have been regulated.

An animal that is properly formed, and
brought into the world at a proper time,
comes gradually to the maturity and per-
fection of its kind, and, if it continues to
subsist naturally, its health is rarely inter-
rupted for a considerable part of its usual
period of existence; if by any accident it
contracts a disease, nature will generally
alone, by slow but certain means, restore
it to a healthful state; nothing can be more

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useful,

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useful, and therefore nothing more pleasant to a good mind, than seasonably and properly to assist nature in this salutary work, nor can any thing be more pernicious or horrid than to disturb or counteract her. Skill in the application of remedies, can arise only from a perfect knowledge of the nature of diseases, of that effort of nature which is to be assisted, and of various drugs and other substances which have qualities that will effect the purpose.

Every disease has a cause, which affects the same body, always in the same manner, if it is otherwise sound and in health. The more simple the cause, the more simple the disease. Of all complaints the most simple is a green wound, in the cure of which we may see a regular process invariably the same. The next is a boil, in the cure of which the process is also regular and uniform till the matter is discharged, the slough cleared off, and the sore reduced to the state of a green wound, when a process somewhat different commences, but still regular and uniform, the same as when a green wound was the first complaint; so
that

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that the poultice and fomentation which were necessary to assist the effort of nature in the beginning, become at length unnecessary. Diseases of the next class are those which arise from particular defects in the constitution. The fourth are those which proceed from errors in what are called the non-naturals, such as eating, drinking, or sleeping too much or too little. The fifth arise from an increase or decrease of some of the natural secretions or excretions. The sixth from alterations in the sensible qualities of the air. And the seventh from the regular changes of the seasons of the year. The first six are well understood, and their causes, symptoms, and indications of cure, have been sufficiently explained: but diseases of the seventh class, those which are produced by the regular change of seasons, not merely by the temperament of the air, but by the transition from one temperament to another, seem not to have been considered with the attention which they deserve. The diseases of this class have indeed been considered separately, but not

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in their connection with the seasons ; not as succeeding each other in a regular order every year, either simple, or complicated with other diseases, which seems to be of very great importance, as it will always acquaint the physician with the nature at least of one disease, which he may find complicated with another.

I have, for more than sixteen years, kept a pretty exact journal of epidemic diseases ; of their first appearance, their increase, their height, when they may be said to be stationary, and their decline ; and I am, from the result of my whole experience, convinced, that if the weather and the winds were as constant and regular, as the length of the days and nights, the epidemics would succeed each other as regularly as the days of each month : but we have, in this country, both dry weather and wet weather in all seasons ; and their effects are just opposite : we have also, at all seasons, winds from every quarter, and the effect of a wind from East to North, is just opposite to that of a wind from West to South. These causes therefore, may
well

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well prevent the regular succession of our epidemics; neither are the opposite effects of cold and heat always in proportion to the degree of heat or cold operating at the time; cold succeeding heat, as in the beginning of winter, braces more than if the heat had not preceded: He who shall diligently compare the fevers of September with those of March, will find them extremely different, though the length of the days is the same, and though the temperament of the air, the damps and rains, should be little different: when they differ, they also must be taken into the account.

I have been told, that near the middle of the continent, where the seasons are regular, the return of epidemics is foretold with great certainty, though in our variable climate it is necessary to be continually upon the watch, to find when one constitution begins to decline, and give way to the next. But if we cannot foretell the duration of each constitution, we know pretty exactly the order of their succession; we know that every *summer* produces a disposition to the fevers which we call

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putrid, and that nature carries them off by the bowels, the skin and the kidneys; that this disposition, or constitution, ends in the *dysenteric fever* of Sydenham, which naturally goes off, partly by the skin and kidneys, but chiefly by the bowels: we know that about the time of the *autumnal equinox*, nature seems disposed to determine the morbid lentor chiefly towards the bowels, to be either evacuated at once by a *cholera morbus*, or in frequent but small evacuations, which constitute the *autumnal flux*; or by evacuations every second or third day, as in Sydenham's *new fever*: and these determinations of nature distinguish what is called the *bilious constitution*, from the encreased secretion of the bile, and the colour of the evacuations, though the encreased secretion of the bile is the effect and not the cause of the disease: this constitution terminates in an *erysipelalous fever*, which differs in several particulars from the erysipelas of the spring: this is succeeded by the *glutinosa spontanea*, which seems to appear in two forms, the *peripneumonia notha* of Sydenham, and the *atra bilis*,

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bilis, or *morbis hypochondriacus cum materia*: this generally continues till the frost sets in, and is then succeeded by the true *inflammatory constitution*, which continues, more or less, according to the winds and weather, during the whole winter, and part of the spring; but in the spring it is complicated with epidemics peculiar to that season, the *catarrhus fever*, *spring agues*, *fluxes*, *erysipelas*, and *febris humoralis*, or *synochus non putris* of the ancients. This *diathesis* continues in some degree till near the summer solstice, when it gives place to the *synochus putris*. Now if it appears that successive seasons invariably produce alterations in our bodies, which dispose them to these different diseases, which, as from a common cause they affect many at the same time, are called epidemic, it will surely be allowed, that no man is properly qualified to practise physic, who does not know them at first sight, and in every stage, whether simple or complicated with each other, or with any other disease, either acute or chronical; and that he who presumes to prescribe for a fever, without knowing the reigning constitution, is a

quack, and should be driven as a pest from civil society. This influence of the seasons also demonstrates the absurdity of pretensions to universal remedies, and the folly of hunting for specifics, which may be given indiscriminately at all seasons, for diseases that are nominally or apparently the same, without considering the difference of age, sex or constitution: it will also expose the danger of adopting any one system, or deducing all diseases of the same name from the same cause, and of following what is called a *routine* of practice, in the cure of the same diseases, at what season soever it may appear. This indeed I am afraid is an error very common even among regular practitioners, and I shall therefore endeavour to detect it by an easy example. We know, by the great success of inoculation, that the small-pox is, in healthy people, a simple disease: the pustules come out after a short fever, mature kindly, and go off without leaving any bad consequence behind them, although no medicine is administered, nor great strictness of regimen observed,

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observed. But the small-pox may be complicated with epidemics of any season, and then medicine and regimen may be absolutely necessary; but if they do not vary according to the nature of the epidemic, they will do more harm than good; so that he who has one fixed and invariable method of treating the small-pox, will as often kill as cure. Suppose a person of a bilious habit, accustomed to large meals of animal food, and the free use of spirituous liquors, should be seized with the small-pox, in the season when the bilious constitution is epidemic; heating medicines, warm air, and opium would infallibly destroy him; and he would probably be recovered by the same purging, the same cold air and water, and the same acids and fruits which are required by the bilious fever when there is no small-pox; cure the bilious fever, and the small-pox will give very little trouble. But suppose that a short-necked, fat, breathless, bloated person, should be seized with the small-pox in the height of the constitution of the *peripneumonia notha*, and that the eruption
should

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should appear on the fourth or fifth day without relieving the difficulty of breathing; would not this person require the same oxymells, squills, antimonials and blisters, as if no small-pox was superadded to the epidemic of the season? and must not the expectoration be principally attended to in this case? Thirdly, let us suppose that in the depth of winter, during a dry, cold North-east wind, a person is seized with a true pleuretic fever, and that the small-pox appears soon afterwards; must not bleeding be repeated? must not all the patient's liquors be tepid? must not his apartment be moderately warm? and must you not, without regarding the small-pox, attend wholly to the pleurisy and inflammatory state of the disease, and give salts and nitre instead of the bark? Lastly, suppose the same small-pox should appear on a person labouring under a spring catarrhus fever, would not tepid liquors, soft pectorals, and mild anodines become necessary? and thus perhaps every month or six weeks through the year, may produce such changes in the epidemic consti-

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constitution, as make a different manner of treating the same disease absolutely necessary to the recovery of health.

Let the young physician therefore, in the first place, make himself well acquainted with all the epidemic constitutions, let him carefully note the effect of cold and heat in each; the effect of dry cold and dry heat; the effect of wet cold and moist heat; and of the different winds distinct from these temperaments: let him then consider the effect of each epidemic constitution, with all this variety of circumstances, upon persons of different temperaments and habits: for the same combination of circumstances which in one person produces a pleurisy, will only brace up another to the point of perfect health: regard must also be had to the patient's place of residence and manner of life; the indisposition to which his family, country or profession is most subject, and what effect the change of seasons usually produces upon him. By observing these rules, a man of patient industry and diligent attention, with no pretensions to more than plain good sense, will be able to

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to distinguish the successive epidemics of the year from each other, and will know whether they are single or complicated with each other, or with diseases that are common to all; he will consequently have great advantages over others of the profession, who have nothing to guide their judgment, but the present symptoms, and the imperfect account of a disordered patient, or a silly nurse, by which they may probably be so fatally misled, as to order repeated bleedings in bilious cases, and strong vomits in those that are inflammatory.

These instructions, which are intended for the young physician, naturally lead me to a general caution of great importance to the patient. If it is true that “there is no curing diseases by art, without first knowing in what manner they would be cured by nature;” it is of infinite importance to trace nature in her course; yet in this metropolis it is too often impossible, because she is generally interrupted before the physician is called in: When a person is seized with an acute disease,

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disease, some drug is administered as soon as it can possibly be prepared, and from that moment the symptoms of the disease are so blended with the operations of the drug, that it is always difficult, and sometimes impossible, to distinguish the one from the other: I would therefore most earnestly intreat the sick to be patient, and the physician to be cautious; let no drug of any kind be taken without advice, and let none be advised till, from a specific knowledge of the disease, there is an indubitable indication of cure.

But we must now observe, that there are fevers which may be considered as epidemic, besides those that become so by the predominant influence of different seasons: these are of two sorts. First, A particular contagion *sui generis*, peculiar to one country. Secondly, Accidental combinations, which may happen in any country. Of the first sort are the pestilence, the small-pox, and several other disorders, the natural productions of some countries, which have been transplanted by
inter-

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intercourse, and propagated only by contagion: of the second sort are the fevers of camps, gaols, hospitals, ships, and other places of the like kind, which cannot extend beyond the spot where they are originally produced, but by communication: of this kind also are fevers which proceed from *accidental* changes of air, diet and weather; but even all these will be affected by the epidemic constitution of the season: and, in fact, we find that one season of the year promotes, and another retards, or perhaps absolutely stops their progress. These diseases therefore are seldom single, and their complication is a most important object of attention.

As an illustration of these principles, I shall, in the first place, give an account of the ague, with which I have chosen to begin, for several reasons; first, because it is well known; secondly, because when it is single it is not dangerous; thirdly, because in this state it may be stopped by a specific; and fourthly, it is common to
all

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all the seasons of the year, and consequently is by turns complicated with the epidemic constitution, which predominates in each; a circumstance which will give occasion to explain the great variety which is observed in this and most other fevers.

I shall then proceed to give an account of each of the common fevers, in as few words as possible, in the same order in which they succeed each other in the course of the year. As this is a circle, it matters not with which we begin, for it is impossible to understand one without comprehending all. As the ague is complicated with each of these fevers, it would continually have recurred with them, if I had not treated all its varieties under a distinct head, and this being done, the subsequent part of the work will proceed in a regular series, uninterrupted by any collateral or adventitious matter.

INTRODUCTION

At the close of the year, and before
quitting it by terms completed with the
economic condition, which presents
itself in each a circumstance which will
give occasion to explain the great variety
which is observed in this and most other

I shall then proceed to give an account
of each of the elements, in as far
as they are possible, in the same order in
which they stand each other in the course
of the year. As this is a circle, it matters
not with which we begin, for it is simple
to understand one without compre-
hending all. As the year is complicated
with each of these factors, it would con-
veniently have returned with them, if I had
not stated all its varieties under a distinct
head, and this being done, the subsequent
part of the work will proceed in a regular
series, uninterrupted by any collateral or
extraneous matter.

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A G U E.

THE ague is by no means the same disease at all seasons of the year: it issues differently if left to nature, and therefore requires different assistance from art. An autumnal or harvest ague is an acute ailment ending commonly in some chronic disorder; and a spring ague is a semi-acute ailment, ending in an acute disease, or in perfect health: for cold makes unformed agues intermit, and heat on the contrary turns intermittents into continual fevers, or brings them soon to a complete crisis: cooling and heating medicines produce in some degree a similar effect; so that though the ague both of the harvest and of the spring be specifically the same epidemic fever, yet the method of cure must be different: the same bleedings that may be necessary to cure agues in the spring, are seldom necessary in harvest. In all countries where the ague is endemic it is observed, that

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there

there are particular winds which affect all the people who have an aguish disposition ; some of them can tell before they get out of bed, whether the wind blows from any point betwixt E. and N. If the end of July or beginning of August has been rainy, and the northerly winds have succeeded, they are seized with an inclination to sleep, and some of them will dose for several days together ; but if the wind continues long from any of the northerly points, especially if attended with rain, fleet, or snow, then a fever comes on, with which these people are well acquainted, and in a few days, if it is left to nature, will form into that kind of intermitten which is incident to their constitution, either tertian, quartan, or double tertian, or double quartan ; so that the same external causes which produce a tertian in one may produce a quartan in another : in some years however the quartan prevails, notwithstanding the difference of constitution and habit. Among strangers, some persons who never had an ague before ; children, and poor people who live hard ; those who have damp houses and bad fires ; who are thinly clothed, or much exposed to the damps of the night ; the drinkers of bad water, and vapid liquors ; the eaters of herbs, vapid fruits, and even flabby fish, are seized with a languor and loss of appetite, which encrease very fast, and

and terminate in a fever; this fever indeed remits in a few days, but is frequently long before it comes to an intermission, especially if the intense cold does not come on: the *bon vivant*, he that has good fires, generous food, and warm clothes escapes, except he has been much reduced by evacuation. This disease is called the fever and ague, or unformed ague, but though all practical authors agree that it should be carefully distinguished from every other fever, yet I have seldom found it sufficiently characterized.

1st, It seldom comes in this city but in particular seasons, when there is an aguish epidemic constitution; and frequent northerly, or north-easterly winds.

2dly, The cold in the first attack is more considerable than in most other fevers, and generally of much longer continuance, so that the sick despair of being ever warm again.

3dly, An ardent fever succeeds with all its symptoms, which seems gradually to rise higher till it remits; a little coldness then comes on, or perhaps some propensity to sweat, loose stools, or an encrease of some of the watery secretions: In the mean time the pulse is irregular, sometimes very full and strong, sometimes small and hard, sometimes pretty soft, but always quicker than it ought to be: The urine also varies,

sometimes it is pale and crude, sometimes crude and high-coloured; when cold, it will at one time have a cloud in it, the very next time perhaps have none, and yet in some hours it may be turbid almost as soon as it is cold. The pains in the head, shoulders, back or belly, are also very changeable, and the great irregularity in the fever, as well as in the concomitant symptoms, is one characteristic of the unformed ague; or of a fever, that after some days may probably intermit.

4thly, In a few days the remission is very perceptible, and then this ague resembles what some have called the low nervous, bilious, or miliary fevers: it is distinguished from the febricula, 1st, By the number of of true agues at that time which denotes the epidemic constitution. 2dly, The febricula advances by slow degrees, but the ague resembles an ardent fever almost from the beginning; it begins with a greater degree of coldness, and that coldness is of a longer continuance; after which the heat and fever are very considerable. 3dly, In the low true nervous fever the pulse is smallest and most contracted in the time of the exacerbation, and when the skin is very hot; but in the ague, the fever, or heat, and pulse keep pace together. The urine in the unformed ague does not long continue pale, but changes colour perhaps three or four times
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in the same day: nay there will sometimes be high-coloured, saturated urine, which will let fall a lateritious sediment; and yet the ague shall not as yet be formed. In the febricula I have commonly seen some small hairs (like the eels in vinegar) when the urine has been rendered in a glass; and when that urine became cold, the cloud that formed near the top of the glass has been of a reticular texture, and white colour, when the urine has been carefully poured from it: The cloud in the urine of the unformed ague in the harvest season, is for the most part brown or reddish, extends from the top to the middle or bottom of the glass, and is of a more loose texture. 4thly, There is another difference which, though perhaps not constant, I have frequently remarked; the remitting fevers of the continent kind are most moderate from eight in the morning till three in the afternoon; but the fevers of the intermittent kind remit at different times, and even have sometimes two or more remissions and exacerbations in the same day. The fevers arising from an oppression or irritation on the nerves keep *the patient on the rack*, without enabling the physician to account for the symptoms; they resemble the ailments *quasi sine materia*: whereas the ague is evidently a fever *cum materia*; arising from a morbid constitution in the

air, added to a relaxation of the solids; an obstructed perspiration, a degree of lentor in the blood, or crudity in the first or second passages; so that the patient seems to labour under a heavy load in a hot day. 5thly, Almost all the harvest agues begin with this remitting fever, which continues unformed till it removes the causes, or till the weather becomes sensibly colder: hence the earlier in the season it begins, it will, *ceteris paribus*, be the longer in forming; and the contrary. This is one great difference between the ague of the harvest and of the spring; for the intermittents in spring which were such from the beginning frequently degenerate into continual fevers as the weather becomes hotter; and if a sudden damp heat comes on, (as frequently happens in the low countries and in the spring season) the ague may universally be changed into a continual fever, just as it would have been by the injudicious administration of heating medicines; and though in some instances it may be brought back to its type by proper evacuations, yet in many it will terminate in putrid fevers, or topical inflammations. In harvest also, if a sudden sharp cold comes on, the remitting fevers will form, and take the type of the epidemic constitution, or the same ague which the patients are used to have. Many observers say, that
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the harvest ailments are more dangerous than those of the spring: But I have for many years past examined the registers of several hospitals, and the success of private practice, with the most diligent attention, and I have found that the number of deaths in proportion to the number of sick, from the middle of January to the end of May, exceeded those in the remaining eight months: I wish some that have better opportunities would make farther enquiries into this subject*. At present I am of opinion, that the autumnal ailments are more numerous, less dangerous, and easiest cured towards the approach of spring; and that the vernal ailments are less numerous, more dangerous, and easiest cured towards the approach of July, when they have run their course, and the epidemic constitution of one season is giving way to the constitution of the next: The cause or seat of the harvest remitting fever is principally in the first passages, and after these have been properly cleansed, the strength may be supported with cordials, without danger of rendering the fever continual; for the cold prevents it, bracing the fibres, and converting the remission to an intermission. But in the spring, the advancing heat produces a tendency to and

* Dehaen had not published his *Ratio Medendi* at the time when this was written.

dissolution of the blood or putrefaction; the air is impregnated with exhalations and animalcula, the blood easily dissolves (I had almost said ferments), and the same causes that produce a decay of strength, make it impossible to recruit it by cordials, without encreasing the danger by destroying the remission and rendering the fever continual: The bark itself, though the coolest and best of all cordials, cannot always be ventured upon; nor in some cases even wines of any kind; so that in this case, the whole pharmacopœia is reduced to whey, vegetable juices, neutral salts, acids, and the like; while the patient is perpetually sinking for want of a support which these medicines cannot give, and which the physician frequently dares not supply from any other sources. If a patient afflicted with an ardent fever in harvest, should do little else than drink plentifully of cold water, it would probably vomit and purge him, after which his fever might first remit, and then become a regular quotidian, tertian, or quartan, without the help of art; but in spring the gradation is just contrary, for then a regular tertian may first become quotidian, then only remit, then become ardent, and at last putrid, especially when hot remedies have been given. In short, in harvest it is difficult to shorten the intervals of a well-formed ague; and in spring it is dif-

difficult to lengthen them; so that an harvest ague is a fever which, if ill treated, may be expected to terminate in a chronic ailment, and a spring ague is an ailment which may terminate in a dangerous fever. Whey, milk, and vegetable diet, purgative mineral and neutral salts and waters, are febrifuges in spring; whereas good fruit and generous liquors are febrifuges in autumn, after the first passages have been well cleared.

In the more southern parts of Europe harvest agues are rare; owing I suppose to good ripe fruit, and the temperate clear weather at the end of harvest, or the beginning of winter; but spring agues are very common (especially in popish countries towards the close of Lent); for which they bleed freely and purge with great success, because hot weather approaches, though perhaps the same method would not answer quite so well in the more northerly countries.

But to return. When this irregular fever has continued several days, the remissions become longer and more regular; the exacerbations, though of a short continuance, are more violent; the sweatings, or watery excretions more profuse, and the sick complain afterwards of loss of strength: Then the urine becomes very turbid when cold, and there is a perfect crisis, and in all appearance, an end of the fever (the quick pulse only excepted) for some hours, during

ing which time the patient has a sound refreshing sleep, some appetite for food when awaked, and is sensible of great relief; he changes his linen, and thinks his disease is at an end, till at last he complains of weariness, and yawns, is seized with pain in his back, head, or limbs, and has a sense of cold over the whole body; a shivering succeeds, which commonly begins at the teeth and jaws, with paleness or sometimes lividness in the nails, lips and nose; a short, quick, tremulous and difficult breathing; then an oppression or anxiety, a nausea, sometimes a vomiting: the pulse becomes hard, small, and quick; the mouth and throat parched and dry, and the urine pale and limpid, or flame-coloured and crude. These are the appearances in the cold fit, or first stage of the ague: I never saw any die in this stage; but in the cold fits of the quartan ague, I have known, besides the common symptoms just mentioned, violent colic pains, the whole belly drawn together in several hard knots, the breast swelled and ready to burst, the eyes staring, the jaws fixed together, the face distorted, the pulse fluttering, the joints cracking with the straining of the muscles, the whole body convulsed, and the extremities cold as lead. After this universal spasm there succeeds an atonia, the patient seems more calm, and breathes fuller, with interrupted sighs;

sighs; the pulse begins to beat more distinctly, though still quick and hard; the patient licks his lips and fetches every now and then a long breath: then a warmth is perceived to begin all round the breast, which gradually diffuses itself over the whole body, and encreases into a very considerable heat, with strong pulse, red face, sparkling eyes, and frequently a degree of delirium: The other pains continue; if any urine is made it is high coloured and crude, he is perpetually calling for drink, yet takes but little at a time, and has all the other symptoms of an ardent fever; these continue till a moisture begins in the palms of the hands, round the head, neck, and breast, and at last over the whole body: as soon as the moisture begins in the hands, the pulse becomes softer, though it continues equally full; the redness of the face remains, but the heat of the skin becomes less, the thirst abates, and the patient drinks but seldom, even though he is wasting by a most profuse and universal sweat; but when he does drink, takes a reasonable draught. Though he is unwilling to move, it soon becomes necessary to make water, which perhaps is rendered, in a large quantity, turbid like small beer, but it soon breaks, after which it lets fall an heavy sediment to the bottom, leaving part of it on the sides of the vessel, with a pellicle on the top

top like that of mineral water: If this sediment is examined, something resembling brick dust will always be found in it, though not always in the same quantity. I have very often seen the urine in this stage of the autumnal disease rendered of a deep red colour as if mixed with blood, and then the whole sediment is lateritious; so that as far as I could observe, Sydenham is right in his observation with regard to the brick-dust or bilious sediment of the urine in intermittents of the harvest season; for it is not a symptom of the spring ague. The desire to sleep at length comes on, and in some hours the patient awakes without any other complaint than weakness, fatigue, and some degree of thirst; the pulse is soft, not full, and a little quick. From the profuse sweatings it might be imagined that the stools should be hard; but on the contrary they are frequently loose and plentiful, and always soft, if the crisis is complete; and this is the criterion of a complete crisis, and distinguishes it from the incomplete or partial crisis; for as a fever is an universal spasm and constriction, so a perfect crisis is an universal relaxation and opening for all the secretions and excretions; and a partial crisis is no other than an opening for some of the secretions and excretions; others are still obstructed. Hence appears the difference between a slow fever, which

which takes up much time in its encrease, state, and decrease, and an ardent fever that goes through its stages with great violence in a short time, and terminates in a complete crisis; and the reason why there is a more perfect apyrexia during the intervals of quartans than of tertians, and of tertians than quotidians; for the paroxysm of quartans is by far more violent than that of tertians, and of tertians than of quotidians. There are several other distinctions in agues necessary to be observed; if there is but one fit which goes through its three stages, and does not return again, it is called an ephemera or fever of one day; if it returns daily, a quotidian; if every other day, a tertian; if every third day, a quartan; if every fourth day, a quintan; and so on, always reckoning the days of the interval and of the paroxysm inclusive: There have been agues which returned after a period of many weeks, nay, and even of years; but if the paroxysm is uncertain as to the day of its return, or if it exceeds the interval of three days, it is now commonly called an irregular ague. The ague should also be distinguished into the exquisita that goes through its stages in less than twelve hours; the simplex which exceeds twelve hours in its course, but the interval of which is of longer duration than the paroxysm; and the

the producta or extensa in which the time of the paroxysm exceeds the time of the interval, and so approaches to a continual fever, which should be carefully attended to, even in harvest.

Ancient and modern writers have made another distinction in agues, under the names of erraticæ τριταιοφνει, hemitritiæ, and duplicatæ, or *redoublé*, as the French call it. This is very common when different agues are complicated together, or an ague is complicated with a continual fever, of which there have been many examples. These are discriminated with the greatest accuracy by Galen; the τριταιοφνει, or tertianariæ, he calls an unformed ague, or continued fever, in which the exacerbation comes every other day; and the ημιτριταϊον an unformed ague, in which the exacerbation comes every day. Celsus calls the ημιτριταϊον a fever in which the exacerbation returns every other day, but the fit is protracted so as to take up thirty-six hours out of forty-eight, and seldom has a complete apyrexia. Now if to this we add the complication of a fever of the continent kind, with the access of an intermittent returning at certain periods, we have three distinctions of erraticæ, which may be of considerable use in the observation and treatment of fevers.

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The ague is a double quotidian when there is a fit every day, but the time of the day varies; if the fit is one day better, and another day more severe alternately, it is called a double tertian, *e. g.* Monday a moderate fit, Tuesday a severe fit, Wednesday a moderate fit, Thursday a severe fit, which is the most common double harvest ague in London. But if there is one day's interval, then a moderate fit, and the next day a severe fit, it is called a double quartan, and will run thus in the journal. Monday a moderate fit, Tuesday a severe fit, Wednesday no fit, Thursday a moderate fit, Friday a severe fit, and so on: This is common in Holland, but not in London. If, instead of returns of these regular stages succeeding each other in the order described above, the sick are seized with only the cold and hot fits without sweating, but with a flow of urine, spittle, or a diarrhoea; then there is rarely or never a total apyrexia in the intervals: But if the cold and hot fits are succeeded by no watery evacuation, then there is reason to fear that the disease may put on the appearance of some kind of continual fever, if not prevented. It is however still an unformed ague or bilious fever. But if the hot fit comes on without any cold fit preceding it, and if it is succeeded by colliquative sweats, a great loss of strength and a tendency to frequent wasting
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partial sweats, then it is said to be degenerated into an hectic fever, which is most common in spring.

Hectic fevers are quotidian intermittents of the spring season, but not agues: They are commonly of three sorts.

1. The *febris hectica anglicana*, or anastomosis of Boerhaave, very frequent in our country, is a disease of the spring-season among young people, from the age of puberty to twenty-five years: The degree of fever is scarce perceptible; but as soon as they are warm in bed, a profuse sweat breaks out, or perhaps, which is more common in the morning, attended frequently with little droppings of blood from the nose, loss of flesh and strength, and a remarkably clear complexion. Restorative diet, rhubarb, elixir of vitriol, with the antiscorbutics, frictions, and cold bathing, are best adapted to cure it. Young women who give suck, of a fair complexion, and lax fibres, are subject to this disease in spring.

2. The hectic, from great evacuations, or a discharge from the broad surface of a large ulcer. This has much the same symptoms, but may happen at any season.

3. The hectic which arises from the absorption of matter from internal ulcers, or which succeeds inflammatory fevers: This has but a very short interval, only from

ten perhaps to two in the afternoon, and the pulse is constantly quick even at noon. When there is sediment in the urine, it greatly resembles pus. This, of all the hectic fevers, resembles an ague the most, because of the frequent little ebills and shiverings that happen in the evening, a short time before the heat and fever rise; yet, by comparing it with what has been said, it may, I think, be easily distinguished from an unformed ague, and from a regular but protracted quotidian: It is preceded by symptoms of generating pus somewhere; by pus evacuated in the urine; by the want of a lateritious sediment; and by the appearance of the countenance, which cannot easily be mistaken by those who have experience, nor indicated to those who have not, which is also true of many other concomitants of diseases.

With respect to the issue of harvest agues, it is certain, that if they continue long, they occasion an aguish disposition ever afterwards; a pale and yellow complexion; a lax fibre, low spirits, weakness, wasting sweats, and all the chronic diseases which those symptoms indicate or produce; yet, if an ague is stopped too soon, or forced out of its natural course by the unskilful use of those medicines that are called specific, it may be changed into a continual fever; especially if it is quotidian, and supervenes

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in the spring. These fevers, though at first they resemble the unformed ague, which preceded perhaps the intermittent; yet, if they do not soon return to their type, they will settle upon some organ, and are frequently dangerous. As the harvest agues partake of the bilious fevers, they occasion, when they are stopped too soon, obstructions in the large bowels: hence asthmas, dropsies, and many chronic diseases, which are scarcely to be removed unless the ague can be recalled; and for that reason Boërhaave used to say, that if he could raise an ague with as much certainty and ease as he could stop it, he should be the greatest physician that ever appeared: I have heard the people of Holland congratulate each other on the return of their ague, and it is a certain truth, that the greatest part of chronic diseases will yield to an ague, if it is properly managed, in young and vigorous people.

To investigate the causes of agues it is necessary to examine several facts: 1st, The countries in which agues are endemic, abound with slow running rivers, low marshy lands, with rainy and changeable weather, whether cold or warm. Hence we find that agues are very frequent in some of our leeward islands, as well as the cold climates of England and Holland.

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But if the soil and climate are ever so good, a poor diet of muddy fish, bad garden stuff, bad water, or poor fermented liquors, and vapid fruits will bring on an aguish disposition; and this, I imagine, is the reason why in the Roman catholic countries that lie high, the ague is only found toward the close of Lent, and among the poorer sort of people. All fat and grease of roasted or boiled meat, especially if smoked, has great efficacy in bringing back an ague when it has been stopt; for which reason smoked beef, ham and bacon are frequently used for that purpose in Germany. Whoever is much reduced, whether by low living, great evacuations, or sickness, are sure to catch an ague in the countries where it is endemic. Thus in the garrisons in Flanders, where gonorrhœas are cured by frequent purgatives, the gonorrhœa is always in a short time succeeded by an ague; and if the ague comes on before the gonorrhœa is cured, it frequently cures the venereal complaint: I was asked very often in that country, if I thought there was danger of a lues from having the gonorrhœa virulenta stopt by the ague's coming on; but I never met with one instance of a lues from that cause. When the French took Bergen Opsoom, they found hardly any good water, and little fresh provisions there; this was supposed to be

the cause of that epidemic fever which destroyed such numbers of the soldiers: Though this fever intermitted regularly in some, yet many died before the intermission came on; for they were blooded every other day till the intermission came on, or till the patient died. One of their surgeons told me the observations he had made on the blood taken from the sick: He said, that in the very beginning of the fever the blood did not appear quite so fizy as it did some days after; that as soon as the intermission came on, the blood dissolved again daily, and that if the ague was not stopt soon, the blood became quite watery, and at last a dropsy succeeded. To produce an ague then, two things are necessary: First, An epidemic constitution in the air productive of that sort of fever; and then a disposition in the body, or such an habit as will be affected by this constitution of the air. Now the disposition of the body which renders it susceptible of an ague, we find to result from a lax and weak state of the digestive faculties, either natural or acquired, by which crudities are collected in both the first and second passages, the large bowels are infarcted, and the subjects become bloated, gross, and inactive; if while they are in this state an aguish constitution prevails, and they neglect to take vomits, rhubarb, steel or bitters, they are sure to contract the disease.

disease. But unwholesome provisions, or drastic purgatives destroy the tone of the stomach and bowels in a very short time; we may therefore reckon them also among the remote causes of agues, with whatever else destroys the tone of the solids, especially of the first passages, and brings on want of digestion and crudities, which will soon spoil the crasis of the blood, and breed obstructions in the larger bowels, where the circulation is most languid, particularly the liver; happy is it if an ague comes on to carry off these crudities, to break down that lentor, and to remove all these obstructions; how dangerous must it then be to stop that ague before these ends are obtained?

But though there are many people in all countries who have the habit (either natural or acquired) which is laid down as the internal or predisponent cause of agues; yet there are countries where agues are scarce ever found; so that there seems to be something besides crude collections or partial obstructions, or even putrefaction, necessary to produce an ague: I therefore consider a particular quality in the air as the external proximate cause of agues. This quality I call the aguish constitution; it is most prevalent in those seasons when neither the cold nor heat is extreme, in calm weather, and when the air is most impregnated with moisture: the ague is endemic in the countries where

the air is loaded with exhalations from a fertile rich soil, and stagnant waters: Nay, I have been told that a whole estate in Antigua has been rendered so unwholesome by making a single dam, that the people in general had an ague every season, if they lived near the collected water: No wonder then if the ague is endemic in all low, flat, or fenny countries, whether the climate be cold or warm. The agues of hot countries, however, are known by experience to be the most dangerous and obstinate, because there the exhalations are most putrid, and the solids most relaxed. High barren lands, where the rivers are clear and the current rapid, exhale nothing noxious, and the vallies between them being swept by perpetual gales, harbour no vapours; the atmosphere is dry, perspiration regular, and a frequent supply of fresh pabulum vitæ add a fresh supply of animal spirits, stimulates to bodily exercise, and promotes all the natural functions; where the climate therefore affords none of the (causæ προκαταρτικη) external efficient or proximate causes of agues, the body is not capable of producing the causæ προεγεμεναι, or antecedent causes; so that an ague can scarcely be bred in these countries, nor ever subsist long in them. An aguish constitution always succeeds a rainy harvest, and accompanies the bilious or new fever of Sydenham;

ham; and from these observations we may discover the cause, viz. the damp arising from the ground, as well as the unwholesome food from the spoiled grain: But the effect of northerly winds in producing and prolonging agues, though equally certain, is not so clear; for suppose these winds to be more loaded with nitre, and colder than the winds from any other quarter, yet how should that make a man of an aguish disposition, sleep perhaps for days together, and affect every part of his body before he gets out of his warm bed? The reason I shall not pretend to assign; but the fact I certainly know to be true. The aguish constitution of the air, or that constitution which renders the ague epidemic, produces a fever *sui generis*, and differing from all other fevers in many particulars, and he who has once had it more easily takes it again. To account in some degree for the symptoms of this fever, I consider the cold fit of an ague as no more than the *frigus febrilis*, and rigor common to all fevers, but greater in degree: If a child in perfect health catches the small-pox, the same coldness supervenes over all the body, the same pain in the head and back, the same sickness at the stomach as in an intermittent, only that the rigor is perhaps in a less degree; so that the cold fit is evidently a nervous complaint, arising from the irri-

tation of the nerves by some acrid particles carried into the body from the epidemic constitution of the air, and retained unaltered, for want of proper action of elastic vessels, or the diminution of the secretions or excretions, or all these together, and this is clearly demonstrable from the symptoms themselves: There is an universal spasm or tension of all the nerves, hence the horror, horripelatio, the shivering, which is very well expressed by the French word *frisson*; then a constriction of all the capillary vessels, hence a languid circulation in them, and a diminution of all secretion and excretion, the dry mouth, and pale urine; but as the heat of the body (before putrefaction begins) depends upon the degree of circulation, as soon as the cause becomes unequal, the effect (*i. e.* the heat) must become uncertain; hence the sense of universal coldness, for the patients feel colder to themselves than to the physician who touches them. In the beginning of this languid motion of the fluids in the smaller vessels, efforts are naturally and spontaneously made to propel the blood by motions of yawning, stretching, and the like; but these proving ineffectual, the disease gains ground, all the coloured parts of the body become pale, and if there is a strangulation any where, livid or purple spots appear. In the mean time, there is an
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accumulation of blood in all the large vessels, which prevents their proper contraction, and seems to increase the rigor.

In feeling the pulse we judge of the difference between the greatest and least distention of the artery; but when a viscid blood meets with great difficulty in passing through the small capillaries, there is a proportional resistance made to the course of the blood in the larger arteries, so that they are unable to contract themselves properly, and we feel the pulse very small, though the arteries are ready to burst, and the heart still forcing more and more blood into the arteries which are already full, their coats become so distended as to feel hard and firm. In the ordinary circulation we feel the artery only at the instant of the diastole, and immediately afterwards it is emptied, so as to become soft and elude the touch till another diastole succeeds. But in cases where a very nervous or sensible part is attacked (such as the stomach or intestines) and consequently an universal spasm brought on, there is a great constriction upon all the capillaries; and so great is the resistance to the motion of the blood in the large arteries, that they are to be felt constantly under the finger like a tense cord, and instead of a regular systole and diastole, a trembling motion only is to be perceived. Hence the small, hard, contracted,

tracted, irregular, quick pulse, and the increased strength of the pulse after a seasonable bleeding.

This accumulation of blood in the large vessels, irritates the heart to frequent contractions in order to remove the load, and overcome the resistance, and this is the *anxietas febrilis*, a sensation which words cannot express. But this *anxietas* is not always felt exactly in the same part; for as there are three different systems of large vessels which perform each of them a circulation partly different from each other, so there seem to be three different sorts of *anxietas febrilis*, almost independent of each other, and distinguishable by their respective symptoms; to distinguish them is the more necessary because the method of cure is widely different. First, there is the system of the pulmonary arteries, by which the blood is all sent through the lungs; secondly, the system of the aorta; and thirdly, the system of the *vena portarum*.

Suppose the vesicles of the lungs suddenly constricted by the fumes of boiling oil of vitriol, there follows immediately an anxiety on the præcordia, which cannot be removed but by fresh elastic air, and the warm steams of hot water; this is the anxiety arising from the difficult circulation in the system of the pulmonary artery. Suppose again, that the circulation was interrupted

terruted in the smaller ramifications of the aërta by a sudden plunge in very cold water, there follows the *anxietas* occasioned by the accumulation of blood in the system of the aërta, which is to be cured by external frictions: But the most common anxiety in agues is below the diaphragm, round the bowels and porta, arising from spasms, languid or interrupted circulation in the liver and large bowels, or crude and acrid collections in those parts; the not adverting to which is the very thing that does so much mischief in the treatment of agues in the beginning. But to return to the cold fit; If this spasm is quite universal, and so violent as to deny all passage in the capillary vessels, then the whole mass of blood, being accumulated in the large vessels and heart, prevents the regular motion of these organs, and they flutter rather than beat, the lungs are stuffed, the face is livid, the extremities are cold, and the almost strangled patient makes such sudden efforts with all his strength, that the heads of the bones in the looser articulations, surrounded by a considerable quantity of synovia, crack in a surprizing manner: When the rigour comes to this height, the sick must soon die if it does not abate; but if the cause of the rigour, *i. e.* the spasm, is taken away, then of course the effect will cease, and the patient will, with respect to that fit, be out of

of danger: This commonly happens as well in the ague as in all spasmodic disorders, if they are not disturbed in their natural course by unskilful management; for when the spasm rises to a certain height, it is immediately succeeded by an atonia or inability to act, which begins the relaxation and solution of the paroxysm; as soon as the constriction is removed, the smaller vessels are dilated, and forced to yield to the propelling larger vessels and the heart, the accumulated blood is pushed through them with impetuosity, and so great is the attrition in these small vessels, and the heat arising from it, that I have often feared, while I have been feeling the skin, lest the very heat might destroy the more tender parts: This is the second stage of the ague which breaks the lentor of the blood, and renders a great part of it fit for excretion, forces open obstructions even in the winding mazes of the viscera, changes the juices of the body, cures chronic disorders, concocts all the fluids, and disposes them and the containing vessels for a complete crisis, which soon follows either by sweat, urine, stool, spittle, or some or all of them.

If we examine the urine in the different stages, we may form from it a judgment of the whole disease. In the first stage the urine is almost insipid, pale and watery, as in hysterics, inflammations of the bowels,
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and all spasmodic complaints; here all the excretories are so contracted as to admit nothing but the watery parts of the circulating fluid, and even that in a small quantity, as appears from the dryness of the nose, mouth, throat, and other parts; but if the spasm is only partial, we often observe the mouth, &c. quite dry, and the quantity of pale urine prodigious, which I have often observed in the morbus hypochondriacus, and sometimes in the intermittents also; at other times the urine shall be diminished, and a prodigious flow of clear water from the mouth shall run out on both sides so as to soke the pillow; hence it is evident that all the grosser parts of the blood are retained, while the more watery alone are excreted; so that what remains must be very fizy, and requires a hot fit to break down the lentor, nor can any thing else except an ardent fever effect it.

In the second stage the urine is commonly rendered acrid, foetid, and high-coloured, but crude as in ardent fevers; for now the exalted salts and scorched oils are passing through the vessels a little slackened; but in the last stage the urine is rendered not only acrid, fetid, and high or red coloured, but also muddy and concocted, that is, easily dividing itself into its constituent parts; for as crudity is the blending and confounding of all parts of the fluids in the

body together, so that they cannot be divided by the proper strainers, so coction is a separating and resolving the circulating fluids into their constituent parts, to answer all the vital purposes, and carry off by the different excretories what is unfit for use: therefore the urine of a true crisis should contain not only the oleagenous and saline excrementitious parts that were detained from coming away during the fever, but all the earthy parts that were abraded from the solids by the violent motion of the blood; it should in part contain not only the morbid matter that first perhaps produced the fever, but also that part of the blood which the heat and violence of the motion had rendered excrementitious, and which would become morbid if retained: The brick dust or lateritious sediment, which Sydenham marks as the characteristic of the ague, is found in most of the bilious fevers; this is pretty heavy; but most commonly there is another sediment yet more heavy, quite at the bottom, and under the brick dust, which contains the most salts, while the oils, that give colour to the urine, are suspended with the watery part: What has been said of the urine in this perfect crisis, may also be said of every other secretion and excretion in the body; for as a hot fit or ardent fever, succeeding the rigour, was necessary to bring about coction,

tion, so an universal critical discharge is necessary to carry off all the excrementitious parts, and though this discharge begins by a profuse sweat, which is, beyond all others, the natural and most material discharge in this fever; yet unless the other excretions are somewhat in proportion to the preceding fever, there never is a perfect crisis, and a total apyrexia.

Different fevers have their different critical discharges according to their particular nature; some fevers incline to pass off chiefly by the bowels, and if an endeavour is made to send them off by the skin, they soon change their appearance, become miliary, and acquire a degree of malignity which originally did not exist in them, but is the consequence of stopping the natural course, and of the warm medicines and forced sweats unseasonably attempted in the beginning of the disease. Other fevers go off by the other glands of the body, some by depositing pus in particular places; many go off by the skin in different ways, some by pustules, others by sweats; and this is the reason why Sydenham observes, that if we are in any doubt about the nature of the fever, we ought carefully to observe the evacuation that relieves nature the most; and every evacuation that does not relieve nature is but symptomatic, especially before coction; but if there are evident signs of coction,

coction, and then any natural evacuation, it commonly gives great relief, even if it is but a partial crisis, and if assisted or frequently repeated will often carry off the fever, like purging in the bilious fever; but certainly in intermittents the plentiful universal sweat is the most desirable evacuation, and found to be the most effectual, if unforced, after the bowels have been cleared. This great evacuation and plentiful drinking of thin liquors (if frequently repeated) must soon totally regenerate all the fluids, and consequently cure not only this fever, but even the venereal or other contagious diseases, if such should happen to exist in the blood at that time. But at the same time the blood will be quite dissolved, the vessels relaxed, and the nervous system unhinged, if the disease is allowed to continue too long: Hence may arise one species of hectic, colliquative sweats, watery collections, and aguish disposition. Again, if the ague is stopped before the cause is removed, and the lentor broken down, we may reasonably expect obstructions of various kinds, especially of the larger bowels, and the system of the *vena portarum*; or in such people who have formerly laboured under ailments arising from obstruction in any particular organ, in that organ; or if we attempt to stop an ague at any time before the necessary crisis and evacuation, it is reason-

reasonable to believe that the great quantity of acrid and excrementitious matter (partly the effect of the preceding fever) loading the blood must occasion nervous, putrid, or petechial fevers, or at least cause a formed ague to degenerate into an unformed or irregular one, which is always a tedious, and sometimes a dangerous disease: It is therefore evident that the sweats must not be pushed over much, nor stopped over soon, and that they should be in proportion to the preceding fever and quantity of excrementitious matter to be excreted: there is a degree of evacuation necessary to carry off what is fit for excretion; but if that salutary evacuation is carried too far, it exhausts the sick, and disturbs nature in the future coction, so that there is a vast difference between sweating twenty hours successively, and twenty hours with intervals between, in perhaps the space of four or five days. What is said of sweating is equally applicable to all the other evacuations, and their measure is to be taken from the relief they give, and the effect they are found to have on the strength of the patient; but in the ague, no other evacuation is truly critical without sweating, and we never have a true apyrexia without some sweating in this particular fever: It is so natural for an ague to go off by sweating, that I have seen, especially on the critical

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days, a sweat begin before I could perceive any signs of coction, and give great relief in a few hours: the pulse has become much softer, but continued equally quick and full, then an interrupted sleep or slumbering has come on, and a sort of insensibility, which renders the patient not easily disturbed either by light or noise; he soon makes some urine, which is much higher coloured than formerly, then sinks down again, shuts his eyes, and appears to breathe more freely, though still quick and interrupted with many groans; he may perhaps be heard to stir, but his eyes will be found shut: he will probably continue in this state several hours, and very often in the next urine he makes, the signs of coction may be perceived: there will then be an appearance of cleaning about the edges of his tongue, and of red papillæ shooting through the white scurf, like new flesh in an ulcer. If he is left to nature he will commonly get a passage before night, but if assisted by a physician he will obtain it sooner, and more easily, by a seasonable emollient or laxative glyster. With regard to these sweats I have observed that they happened on some of the critical days, and that they were preceded by a considerable exacerbation, or *perturbatio critica*: I have often seen that though these sweats promised no great relief at first, yet by being promoted

promoted a little, a perfect crisis was brought about, especially if the glyster procured stools, or brought on a sort of natural purging: sometimes the fever was entirely carried off, and at other times there was a real intermission, followed by a well-formed and regular ague.

Hitherto I have endeavoured to assign the causes of intermittent fevers, viz. moist air; diet, crude or of difficult digestion; great evacuations; or whatever may occasion weak nerves, obstructed perspiration, crudities and collections in the first passages, and a degree of lentor in the blood; these, assisted by the morbid miasmata of the aguish constitution, occasion that universal spasm called the rigor or cold fit: The hot fit I have considered as the necessary consequence of the rigor, and the sweating as the critical discharge, or the crisis of the hot fit. When this crisis is not complete there follows only an alleviation of the symptoms, but not an absence of fever, nor the true signs of coction, so that there remains a remitting continual fever; but when the crisis is complete, we find the signs of coction, and a real absence of fever. What remains is to give the reasons, First, Why, after all, this cold fit or fever should return again? Secondly, Why it should return at certain periods? Thirdly, Why these periods should be different in different

people during the same season, or in the same people in different seasons, and yet the disease go through the same stages? Or in other words, why does an unformed ague become an intermittent? Secondly, Why is that intermittent a regular quotidian, tertian, quartan, &c.? Thirdly, Why are these quotidians, &c. sometimes double and irregular in the paroxysms, or blended together, or complicated with other ailments?

As to the first of these unprofitable questions, an unformed ague is a continual fever, and will be such till there is a proper coction and afterwards a complete crisis, and then there is an absence of fever or an apyrexia; whereas an incomplete crisis makes only a remission. But if the same causes that brought on the fever are continued, the same effect must follow as at first, *i. e.* the fever will again return, which must again be followed by another coction and crisis like the former; so that the second paroxysm seems rather to be a second fever, not arising from the first fever, but from similar causes, and so resembling it in appearance; and this likeness of symptoms in many succeeding fits, is perhaps the reason why they have all been called the same intermitting fever, though in fact they are so many distinct fevers, arising from the continuation of the same, or similar

lar causes; and this is one criterion by which a well-formed ague is distinguished from a remitting fever.

To the second question, Why are formed agues regular in their periods? It may be said, that the cold fit is a spasmodic ailment as much as an hysterical fit or any other: now in all the spasmodic ailments we know that a second access is more easily brought on than the first, and a third than the second, and so on; *e. g.* If a woman by a sudden fright is thrown into an hysterical fit, a much less fright will throw her into a second, and still less into a third; nay, if these frights and fits are regularly repeated for some time, she will at length fall into these fits at certain periods even though there is nothing to affright her, and the same is true in all the spasmodic ailments. Now if an ague was originally owing to crudities, lentors, &c. a less quantity will bring on a second fit than was necessary to bring on the first, and so of the other accesses; and if these paroxysms are often repeated, there will be a regular return of the fever even after all the original causes are removed: And from these observations may be gathered not only the reason why agues are regularly periodic, but why people who have been long afflicted with agues have an aguish disposition ever after.

As to the formed but irregular intermittents, or the double agues, they are not quite so common as some imagine, and are frequently owing to some irregularity in diet, want of patience in the time of the crisis, or the unskilful use of the febrifuges: However, the most frequent are double tertians and quartans which are well formed; and I have often seen well-formed agues complicated with other ailments, though I never saw double quotidians that I thought well formed: Who can account for these things! Let us then lay aside conjecture and confine ourselves to facts, And first of the prognostics:

1st, Agues in general are not very dangerous; I have always observed that fevers with strong pulse, high-coloured urine, moist skin, or open belly (if there was no particular inflammation) come to a coction and crisis in a few days if properly managed; and I can venture to say, that there is greater danger of doing too much than too little in any fever that resembles an unformed ague; however, the habit of body, the manner of life, the former ailments, the climate, season of the year, and *epidemic* constitution, may enable a physician to determine with some degree of certainty, whether the remitting fever will terminate in an intermittent; and if so, what kind of intermittent it will be.

2dly,

2dly, The sooner an ague forms, the more benign is its nature, and on the contrary; for when any continual fever is turned into an intermittent, it is a sign that the matter which occasioned the fever is in a great measure concocted and rendered fit for expulsion; but if a very tedious fever is necessary to bring about this coction, then we may conclude that either the matter has some degree of malignity, is very difficult to be broken down by the vessels, or that the vessels are weak and unactive, either of which prognosticates a tedious illness; and such unformed agues if they happen in the spring, frequently terminate in tedious fevers, or fall upon some particular organ and produce many diseases, especially in old people. The old or worn-out people are indeed (*cæteris paribus*) most liable to tedious agues, and chronic diseases arising from them; the young and more vigorous have violent fits, perfect coction and crisis, but, if improperly managed, are liable to dangerous obstructions, and very acute ailments arising from them.

In the low countries it is observed that agues continue long unformed in autumn, if the frost does not set in early in the season; but that they form at last and go off by a regular intermittent: whereas unformed agues, with the same symptoms in the spring, frequently terminate in a putrid fever,

which is always dangerous. Hence it is a kind of adage among the inhabitants, that an unformed ague is tedious in autumn, but dangerous in spring. Dry weather, with a wind from east or north, forms agues soon; and on the contrary, moist weather with westerly and southerly winds makes them very tedious, so that they sometimes go off without forming at all, and at other times are turned into malignant fevers by overwarm weather, regimen, or medicines. In a word, an unformed ague is a very serious ailment at any season of the year, if too much is done to cure it, otherwise I believe it to be much less dangerous than the other remitting fevers; for I have seen the strength fail very fast, (which I take to be the sign of approaching putrefaction and malignity in acute diseases) and yet two or three fits of an ague have carried all off, and the person has recovered strength surprizingly. With regard to formed agues, the tertian is the true depuratory fever, and is a medium between the harvest quartans and the spring quotidians; and I believe Forestus's observation to be true, that nobody dies of a tertian unless it degenerates into a continual fever. It is a good sign then when a quartan becomes a tertian, because there is less danger of chronic ailments, and the fits are more tolerable; it is also a good sign when a quotidian becomes

comes a tertian, for there is less danger of a continual fever. Other prognostics, which are nearly the same in all fevers, will more properly be mentioned when we treat of the method of curing each of them.

The method of cure.

To lay down a plan of cure, we ought to follow the history of the disease. Thus we ought to consider, 1st, The unformed ague. 2dly, The formed but irregular ague. 3dly, The formed and regular ague. 4thly, The regular quotidian, tertian, quartan, &c. But as it happens that the unformed ague is seldom single in the beginning, and is generally the result of some other disease mixt with the ague, we must depart from this order, and begin by the single, well formed ague; which being well understood, will enable us to explain the unformed ague, or the compound disease arising from an ague superadded to another distemper: that is, we must treat of all the common fevers first, before we can give a true idea of the unformed ague. Thus, *e. g.* The unformed ague of the spring season is a double ailment, of which the ague makes but one, and that the least part; the inflammatory disposition of the blood, and the *synochus non putris* of that season make the other, and far more considerable part.

To

To cure an unformed ague, the first intention is to bring it to well-formed regular fits; but this cannot be done till the inflammation is reduced, and the synochus removed, after which the ague will form, and no sooner. In like manner the unformed ague of the harvest season is a disease consisting of a bilious or atra-bilious fever, complicated with an ague. Before the ague can be formed, the bilious, or atra-bilious fever must be removed, so that the consideration of the unformed ague must be deferred till the nature of the other fevers compounded with the ague is explained. In explaining the other common fevers I will consider them, 1st, single; and 2dly, compounded with an ague, which will explain the true nature and the varieties of the unformed ague. At present I will consider the ague as the only, or at least as the principal disease, and in that case well formed.

Having now given the history of the ague in general, I shall, in prescribing the method of cure, begin with the formed ague of the harvest season: This disease is known to every body; every body can cure it; and what is surprizing, by opposite remedies: One cures it by alkalines, another by acids; one by astringents, another by emollients, diluents, and evacuations; one by heat and spirits, another by cold and

nitre. Each of these remedies has frequently succeeded, but all have frequently failed. Every country has a specific which has often been effectual, but often insufficient; nay, the bark, the most certain and universal specific, has sometimes failed in its turn. This variety and uncertainty has a cause, to investigate which is my purpose; in order to ascertain when evacuations are required, when cooling medicines, when heating, when acids, when alkalines, when the bark, and when astringents. First, I must observe, that stopping the course of an ague, and curing it, are two different things; for, by unseasonably stopping the course of it, the cure is not only retarded, but other diseases are frequently brought on of a nature more dangerous, and more difficult to cure than the ague; to prove which, I shall content myself with selecting two cases out of a great number in my journals. In the year 1748 there came into the infirmary of Edinburgh a middle-aged woman ill of an ascites: Upon being examined by Dr. Rutherford it was found to be the effect of taking the bark too soon in an ague of this season; accordingly she was ordered to dilute plentifully with an aperient decoction for two days, after which a brisk emetic was given her, then a pretty rough purge, by which a good deal of water was evacuated; then she

she was ordered the pills No. 15. and the apozem No. 16. by the use of which the ague returned: The vomit was repeated between the fits, and the purge once; the pills and apozem were continued: The ague gradually abated, and the dropfy was radically cured. By-the-bye, the *extract. fuliginis* is a good medicine, and ought to be kept in the shops here.

The other case was partly of the same nature, and from the same cause; a young gentleman in business in Carolina, was in the middle of harvest seized with an epidemic fever, which soon remitted, and at last intermitted; the bark was immediately given and persisted in for fourteen days, during which time he had no cold fits, but frequent hot fits and little sweatings, great anxiety, restlessness and dejection; a dose of physic was then given him, and the bark immediately repeated, and persisted in for many days; after which they perceived his eyes discoloured, and his flesh and strength decayed, with loss of appetite, frequent nausea, and dejection of spirits; he was then ordered over hither, and directed to take restorative bitters during his passage: In this situation I found him; and upon farther examination I found his tongue much discoloured and foul, and discovered that there was a considerable bulk in the region of the liver. I immediately

diately ordered him to dilute with an aperient decoction, and whey, by turns, into which was put some soluble tartar and sal. polychrest: I then directed a brisk vomit, and afterwards a purge. He seemed to recover his spirits a little, his pulse became softer, he was not so drowsy in the day, and yet slept better at night; the nausea was removed, but all the other signs of obstruction remained; the squill mixture and decoction No. 6. were ordered, and persisted in for some days: this made him puke once or twice a day, and kept his body continually open. At last the ague returned in a very smart fit; the purge was repeated after the fit, and the mixture No. 17. was ordered. In about thirty hours the fit returned again, not quite so violent, after which the vomit was repeated, and the mixture continued, with the addition of some chamomile-flower tea: The fits abated gradually, the yellowness and all the fever went quite off; he seemed well for some days, and though thin and pale, he was lively, and rode on horseback every day. One morning he came to me, complaining of his stomach and want of digestion, in spite of all the riding and exercise he took; his tongue was clean, skin cool, pulse moderate: I took the case now for a relaxation in the stomach, and ordered him a scruple of the bark morning, noon, and night, with

with a few grains of rhubarb : This bitter I expected would have answered my purpose ; but in a few days all the former symptoms returned, and a new disease, the jaundice, came on : I directly ordered him to take the vomit, purge, and squill mixture, as above, and to continue the squill pills of the pharmacopœia pauperum of Edⁿ. and a saline mixture for a considerable time, varying the quantity according to the effect ; which made a radical cure. The woman had an ague that intermitted from the beginning : the young gentleman's ague succeeded a remitting fever, and yet both of them were stopt too soon, and had nearly been fatal ; nor could either of the patients perhaps have been saved but by the return of the ague : Hence I infer that an ague may be stopt too soon. On the other hand, an ague may be suffered to run on too long ; as we may infer from its being sometimes mortal, and from its morbid appearances after death, which I had an opportunity of seeing in several bodies at Roüen, where the bark was not in so much esteem as it ought to have been ; where the diet among the lower people was poor, and the evacuations perhaps too plentiful. In these subjects we found the veins of the brain much distended, and more water than usual in the ventricles : The lungs were loaded with
blood,

blood, as if they had not been able to discharge themselves: There was a good deal of water in the breast of some of them; in all, the vessels of the heart were much distended, and the large vessels greatly enlarged: In some there were polypus concretions; which might have been either the cause or consequence of death. In all of them, the stomach and bowels were greatly distended with air; in many there were gangrenous spots; and in some, excoriations were found in the stomach. In all, there was some yellow water every where in the belly; the liver was large and of a pale colour, and the vessels of the porta much distended with black blood; the spleen was large, and discoloured with many purple spots. In one, the gall bladder was much distended with bile, and there seemed to be a twist, contortion, or spasm in the *ductus communis*: the liver also in this subject was of a prodigious size, and his legs were œdematous. In many, the glands of the mesenterie were hard and large; but when divided there came out a yellow watery humour. The pancreas was affected in some, and the whole body almost destitute of fat. These appearances proved the truth of what others have often observed, and confirmed my opinion, that an ague may be suffered to continue too long.

From

From all this I infer, 1st, That there are circumstances which render it improper to stop an ague. 2dly, That there are circumstances which make it proper. 3dly, That there are others which make it absolutely necessary. And, 4thly, That there is a way in which an ague may be stopt so as to render the cure safe and radical.

To ascertain each of these circumstances it is necessary to distinguish the formed ague into its two sorts: First, the ague that succeeds a remitting fever; and, secondly, the ague that intermits from the beginning. As to the first, when the continual fever is brought to intermit, it is already in a great measure cured, and most commonly it will be carried quite off by the continuation of the same remedies which brought it to intermit. This is the most desirable way of curing the ague which succeeds a remitting fever, because it is the most radical, and consequently the most likely to prevent relapses or disagreeable accidents. *This method* then should be *always* first attempted, observing the effect of every fit. Is it not improper to give the febrifuge, if the patient recovers spirits, strength, appetite, colour, and a relief from his former complaints? If you see a sensible amendment after every fit? If the fits are becoming more and more moderate, and of shorter duration? And if there have been symptoms of obstruction in the
bowels,

bowels, or chronic disorders that seem to give way to the paroxysms of an ague? We know that an ague cures melancholy and madness; is it not improper therefore, when an ague supervenes upon these diseases, to give a febrifuge? If a jaundice from obstruction or dropsy has preceded, if the patient is liable to any rheumatic or gouty complaints, should we not try to conduct our ague so as to be of service to these more obstinate diseases? And always remember that it is in our power to stop it; but not always in our power to recal it again. An ague, in my opinion, should be considered in the same light with the natural evacuations in fevers; it should be gently promoted when it brings relief, but particularly so if it is moderate, or the pressing symptoms are such as may be easily kept within bounds. In short, before we proceed to stop an ague, we should consider well the age, sex, strength, and former ailments of the patient, the season of the year, the nature of the preceding epidemic, and the nature of the particular reigning constitution; but we should carefully distinguish between the idiopathic ailments which subsisted before the ague came on, and the symptomatic ailments which are rather the consequences of the ague: We should likewise carefully distinguish between the ailments that are relieved by the

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ague, and those that are only complicated with, or exasperated by it. For as an ague of a benign sort, properly conducted, is frequently salutary in some countries, at some seasons of the year, and to some constitutions; so it is frequently of a malignant nature in some countries, in some seasons, in particular years, in many constitutions, and in old age. In order to investigate which, it is again necessary to consider well the country and climate, the season of the year and weather, the preceding epidemics, the nature and particularities of the then reigning constitution, the ailments of which it is or may be productive, the age, sex; strength and constitution of the individuals; the ailments to which they are or may be liable, and the diseases with which the ague is, or may be complicated. These alone can determine the propriety or impropriety of stopping an ague, and the manner in which we are to proceed, safely and radically to cure it.

It is indeed impossible to lay down rules for determining absolutely and with precision when an ague should be stopt, as it is impossible to conceive every case and circumstance that may occur; but certainly all agues ought to be stopped which have in themselves a degree of malignity, that malignity alone being a sufficient reason. There are also agues which are not malignant

nant in themselves, and which yet ought to be stopt, upon account of certain circumstances attending them. Thus for example, in cases where the patient has laboured under a particular weakness of any one organ; we often find that organ so affected by the paroxysm as to render every fit extremely dangerous; and I have seen violent pains in the head in some, infarction and strangulation in others; violent vomiting, pains, cramps, and swelling of the belly in others, which were very dangerous in their consequences, and which as they came on with the fit, could not be prevented but by stopping the ague. We may venture farther to say, that every quartan, single or double, is rather malignant, and should be stopt: If the ague has continued long and resisted the simple treatment, if the fits do not bring relief; but on the contrary the patient loses colour, strength, flesh, and appetite; if the fits occasion hemorrhages, jaundice, swellings in the belly, or in the extremities, and if we have reason to suspect that these symptoms arise from spasm or weakness rather than obstruction, then we shall find that their cure is stopping the ague, and the cause and effect will go off together. With regard to the circumstances that attend agues (besides the preceding ailments, or the complicated concomitants that may be

exasperated by the violence of the fits) the idiosyncrasia of each individual should be considered; fair-haired, weak people, tender infants, and infirm old * people are seldom benefited by the long duration of an ague; and pregnant women and those who give suck may be endangered by the violence of the fits. The season of the year makes a considerable difference; *cæteris paribus*, the nearer winter, the more rainy the season, the longer the ailment has continued, the longer the interval between the fits, the more safely may febrifuges be given; for as all the drugs that go by that name, are either bitter, heating, or astringent, they are chiefly necessary, when the ailment tends towards a chronic disorder, and never where there is danger of losing the intermission, and bringing back the former remitting fever; except in cases of great necessity, and when the ague is productive of the most dangerous symptoms, or of other ailments. The same doctrine may be applied to agues that in-

* King James the first was subject to a spring ague, and found himself the better for it: He therefore used a saying, which afterwards became proverbial: "An ague in spring is physic for a king;" but when in the decline of life he was seized with that ague of which he died, one of his friends came to congratulate him on the return of his ague, and repeated his own saying; but the old man answered, "I meant a young king."

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termit from their first appearance : They also are of two sorts ; one so mild that the nurse can do no harm, and the other so obstinate that the physician finds it difficult to do good. They are commonly the return of former agues, and in that case will be found to resemble their predecessors ; but we have seen agues form from the beginning, and become very troublesome and obstinate. In all such cases it must be very hurtful to stop them before the necessary evacuations are made, and the lentor is broken down ; I have seen dangerous continual fevers brought on by the attempt ; and I have seen a regular ague turned into an anomalous ailment that never could be cured by any remedy, neither by changes of climate, sea voyages, mineral waters, or long journeys on horseback : A precipitate administration of the bark and dependance upon the increased quantity of it, frequently prevents it from having the desired effects : Whereas, if the patient is well conducted through the different stages of the fit, and the necessary evacuations are instituted in the intervals, the apyrexia will become every day more perfect, the fits become milder, and perhaps go quite off without any febrifuge ; and this, as we have before observed, is most desirable ; but if the fits should on the contrary become more severe in proportion as the intervals lengthen, after

the treatment recommended above, the bark in a large quantity may be depended on, and perhaps will seldom require much assistance from any coadjutor: We shall consider the drugs afterwards; at present we shall confine ourselves to the disease.

In the beginning the harvest agues are for the most part double; that is, either double tertian or double quartan; for there is no real quotidian in harvest, as there may be in spring (at least I never saw one); I have seen double tertians that were called quotidians; but upon proper examination I could easily perceive a remarkable difference in the symptoms, and that the alternate days corresponded. Now it is of great consequence to discover, in the very beginning, whether the disease is of the family of the tertian or quartan; for though they are of the same genus, and may be made productive of each other, yet they are different species, and require a different treatment: I must therefore be a little minute. There are three things to be considered in the cold fit. 1st, The *frigus* and the *horror febrilis*. 2^{dly}, The *rigor febrilis*. And 3^{dly}, The *anxietas febrilis*. In these consists the first difference between the double tertian and double quartan. In the tertian the patients complain of great cold; but they do not feel so very cold to another who examines them

as in the quartans; the lips are not quite so pale, the nails are not quite so white, nor the points of the fingers so livid or purple; the feet are cold, but have not, as in a quartan, the unnatural feel which resembles that of a dead corpse. The degree of the horror is not so great, the patients can speak very plainly; but in the quartans, the tremor is frequently so considerable, that their very speech is interrupted. 2dly, The degree of rigor is the characteristic of the quartan, it is like the cramp in every muscle, the rheumatism in every joint, or according to expressions of the patients which I have often heard, the beating, bruising, and breaking of every bone in the skin. 3dly, The *anxietas* is a sort of *rigor inter-nus*; it is the cramp in the stomach and intestines, the spasm in the excretories of the large bowels, the surcharge in the lungs, large blood vessels and heart, and the universally retarded and obstructed circulation: In short, the cold fit of the quartan, is in all respects more considerable than that of the tertian, and at the same time of longer duration. The cold fit of a tertian lasts commonly little more than an hour; if it exceeds two hours it most commonly will be found tending towards a quartan. The hot fit of the tertian comes on in greater haste, and rises to a greater height in proportion: The danger

ger of a tertian is greater in the hot than in the cold fit. I was obliged to bleed a gentleman of the Temple, Dr. W. G. in the hot fit, because the pulse was prodigious, the eyes were enflamed, the delirium and pain in the head intolerable: This expedient had a very good effect; he was able immediately to lie in bed; the crisis soon came on; and all went off well. The great flushing or redness in the skin is more common in the tertian, and indicates a profuse sweat. A maid-servant of Mr. M'Intosh in Lombard-street was fifteen hours in the cold fit of a quartan: the hot fit that succeeded was trifling, and the sweat was but partial and inconsiderable, though she drank a great deal of white-wine whey, with spirits of hartshorn. In short, the tertian is the ague of people in the vigour of life; the quartan of people in the decline, or of such as are exhausted or reduced by hardship or disease: I have found, but not till within a few years, even in London, a sort of aguish constitution, which was, more than ordinary, productive of quartans, that did not yield easily to the common methods of cure, and required a larger quantity of the bark, with alexipharmicks. May we not then conclude that the tertian, as being the most inflammatory, will, *ceteris paribus*, require a more antiphlogistick treatment than the quartan;

quartan; and that the quartan being more nervous, will require *c. p.* more of the warm, restorative, and nervous medicines and diet: That the sooner we can distinguish the one from the other the better: that the want of this distinction is one reason why agues are said to be cured by opposite methods: We have known agues cured by purging, nitre and soluble tartar, after the best bark in substance had been given in large quantities betwixt the fits, and long continued without success. We have seen agues where these methods have done mischief; where even the bark alone would not do, but has succeeded by the addition of other medicines. I wish we could discover the true nature of diseases, for we should then find little occasion for specifics: Let it be again observed, that, with respect to agues, if we do not consider the nature of the disease which the reigning constitution renders epidemic, if we do not know whether the ague is of the tertian or quartan kind, and if we do not critically examine what diseases have preceded it, and the age and constitution of the patient, we may perhaps fatally err in the quantity of the febrifuge, in the time of continuing and repeating it, in the kind of diet and medicine prescribed at the same time, in the subsequent necessary evacuations,

tions, and in the nature and cure of the remaining symptoms.

Before I proceed to describe the method of cure which I have found the most successful for agues in general, it is necessary to consider the pressing symptoms that most commonly attend the formed agues of this season, particularly when they are double; and first, there are two sorts of headaches (besides the *megrin* or *hemicrania*, of which afterwards when we come to recapitulate the diseases of the spring) one is spasmodic, and attends the cold fit throughout; the other is inflammatory, and begins and increases with the hot fit: It does not go quite off with the crisis, but is felt now and then during the interval; and I have seen it rage after the ague has been stopped by the bark. The first ought to be carefully distinguished from the second, because the methods of cure are opposite: The first is always to be carried off by the febrifuges, and the second by bleeding alone; neither vomits, purges, blisters, nor febrifuges will do: I have seen them all tried in vain, and the symptom cured by bleeding. Here then is one case in which bleeding becomes necessary in a formed ague, even in the harvest season: It is most frequent in the double tertians, and after the bleeding the fits become more mild, and the intervals commonly longer. Sometimes
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after a bleeding, one of the tertians disappears and the ague becomes single; nor did I ever see bleeding do harm when the pulse has continued hard, the intervals shortened, and there has been danger of losing the intermission: On the contrary, it frequently restores the disease to its proper type, and the bark may be given with greater safety afterwards. I have frequently ordered bleeding for this headach during the time of giving the bark, and with very good success; observing carefully the effect during the operation. Here then is one species of headach in which blisters may do harm rather than good.

The next pressing symptom is a sort of strangulation during the cold fits. I have known this symptom resist vomits, volatiles, and pectorals, and yet cured at once by a large blister. It differs from what is common in the beginning of winter, when the ague is complicated with the *peripneumonia notha*, (of which in its place) it seems to arise from spasm rather than phlegm. Here then is one symptom in harvest fevers that is removed by blistering; and I have known a fixed pain in the breast from spasm during the cold fit, carried off by the same remedy applied upon the part, in the same season. The *nausea*, violent reaching and vomiting that attend some agues, make together

together another pressing symptom that should be carefully distinguished, because it is of two different sorts. The first is that which is common in most agues arising from crudities and collections attended with a foul tongue, rank breath, and the signs of fulness: it is most violent in the beginning of the ailment, when the necessary evacuations have been neglected; it is, in short, *cum materia*, and is cured by vomiting and purging; but the other is *quasi sine materia*; the effect of spasm or excoriation, never gives relief, but fatigues extremely, and is exasperated by either vomits or purges, or saline medicines: It commonly begins after the ailment has been of some standing; when it is from spasm only, it goes and comes with the fit, and is cured by the febrifuges; but when it proceeds from excoriation, it is in some degree the effect of the former vomitings, continues even in the intervals, and gives way to nothing but anodynes of the soft kind. The swelling of the belly or extremities likewise deserves consideration, as it may arise from opposite causes; and consequently requires different treatment. The question is, when it proceeds from spasm or weakness, and when from obstruction. If the evacuations have been brisk, and frequently repeated; if the ailment has lasted long, if the fits are considerable and long, if the interval between

tween the fits is long, if the season is far advanced, if the whites of the eyes are of a bright pearl colour, if the diet has been low and watery, if the pulse is soft and small between the fits, if there is no constipation, and if the fits rather increase than diminish the symptoms, (notwithstanding the vomiting and sweating) if after the fits there are signs of fatigue and languor, if the tongue appears as if it was silvered, (not loaded, or *chargé* as the French word expresses it) if there is a little but continual inclination to drink, yet no appetite for food; then we may conclude, that the swellings are the effect of the disease, and will subside by the use of the febrifuges.

But, on the contrary, if the evacuations have been neglected; if the regimen has been warm, if the diet has been of the animal kind, and the drink spirituous; if the face is bloated, the eyes protuberant and yellow, with a fulness in the veins of the *tunica albuginea*; if the skin is of the colour of wax; if the tongue is loaded and yellow, with a rank breath; if the pulse is full and hard in the intervals; if the fits are irregular, and the intervals not very long; if the fits seem rather to diminish than increase the complaints; if there is a ravenous appetite, and the patient eats voraciously between the fits; and if it is early in the season, or
before

before the bilious constitution is well over, the febrifuges will rather increase than diminish the symptoms, which will continue to increase even after the ague is stopped, and cannot perhaps be removed except the ague returns: and indeed it is very fortunate, that where the ague has been stopped by the bark, before the original predisponent causes have been removed, the ague most commonly returns of itself, or is easily brought back by vomits, purges and deobstruents, of which I have seen many instances. This, however, ought not to encourage rash practice; for I have seen cases where all have been tried in vain, where the ague has never returned, nor the obstructions been removed.

Thus much for the most common of the pressing symptoms. I proceed to describe the course which I have found most successful in the cure of the agues of the harvest season: I have one course for double and single tertians, and another for double and single quartans, which are the basis of my present practice, (though by no means my own invention) making still some allowance for the *mutatis mutandis*. I must therefore begin with the intermittents that succeed a continual remitting fever, and pursue them first to the end of a double, and then of a single tertian: After which I shall take up the quartan where it begins to be double; trace it till it becomes single, and
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shew how it goes off: And last of all, I shall beg leave to consider the fevers that begin by real intermittents, but are in danger of becoming continual, which includes all the stages and forms of this disease while it is genuine, single, and unmixed with other ailments. Whenever we can perceive a real intermission, it is evident that the disease has altered for the better, and we need not be anxious (as has before been observed) to change the method of cure that brought the fever so far to the state desired. But though there is a real intermission, it is still perhaps but very short; for in a few hours the rigour will return in some slight degree, and an hot burning fever will follow for many hours without intermission; and perhaps run so high that a little blood must be taken; particularly if the patient is plethoric; therefore, I wait patiently, and order nothing but plenty of small white wine whey, oatmeal water, or an infusion of elder flowers; all which I direct to be acidulated with *cremor tartar* in the harvest agues, and sweetened with honey if it does not disagree with the sick. Suppose, for example, that this intermission or first cold or shivering happens on some time of the afternoon of Monday, then, I say, nothing is necessary but this plentiful dilution till the second stage of the fit is pretty well

well over ; but when I find that the sweating begins to abate, (for it is seldom of very long duration in the first paroxysms) then I begin to give a small cup of the purging *ptisanne*, No. 8. every hour till I procure a stool. By this I expect to lengthen the succeeding intervals, and make the apyrexia more complete. After the purging begins, I order some broth to be taken from time to time, made with *forel* or barley, or acidulated with as much lemon juice as will make it pleasant. The time of the attack, and the degree and duration of each stage of this fit should be carefully ascertained and taken down, because it is to be compared with what is to happen on the next Wednesday, and the dose of physic should not be neglected notwithstanding the inconveniency of the hour of the night; perhaps a sick person has no day or night but of his own making, for he must take his sleep when he can get it. After the operation of the purge, the patient will sleep better and longer the next morning, Tuesday, he will find himself greatly relieved, though no opiate or cordial has been given ; that relief, however, will not be of long duration, for most likely the cold of the second fit will come on some hours sooner than the fit of the day before, Monday, and the fit will probably be found much smarter ; there will be more horror, or more rigour, and

of longer duration, particularly the cold stage: And this must be carefully taken down, because it is the first fit of the second ague; all the differences between this fit and that of Monday must be carefully compared; first, that we may ascertain which of these two is the strongest; and then that we may, on the following Thursday, (the morrow after the return of Monday's ague) be able to determine whether the Tuesday ague abates or not. If Tuesday's ague is found the strongest, (which frequently happens) that is, if the cold fit and its symptoms are the strongest and most lasting, then we may depend upon a longer apyrexia on Wednesday morning, and an ague completely formed; therefore, when the sweating has lasted about an hour on Thursday, I begin the saline mixture with the infusion of camomile, No. 17. and continue it every two, three, or four hours, if the patient does not sleep; and indeed, if the inclination to sleep does not come on after the sick has been shifted, and the bed put to rights, I add fifteen drops of the *tinct. thebaic.* to one of the draughts, which I have always found successful: in the mean while, I indulge the patient with broth, white-wine whey, or wine and water, and a glass of plain wine if he is fatigued; but if

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his tongue is foul *, I prefer old hock to other wines, and next to that, claret : on Wednesday morning I expect to find him pretty

* In examining the breath and inside of the mouth, I find a considerable variety; besides the aphthæ, (which is a sort of critical eruption, as we shall see in its place) there is a slight thin dry silver-coloured covering on the tongue in the beginning of the inflammatory constitution, and during the dry north-east winds in spring, which differs from the moist, foul, thick, yellow, bilious covering in harvest; and from the brown, dry, hard, rough crust, when a putrescent constitution begins to take place. Now, as our fevers are for the most part complicated, it is of the utmost consequence to know every thing that may help us to discover how much the condition of the fever tends towards the one or other of these. We seldom have a true inflammation in London during the summer, which will give way to bleeding, whey, and *nitre* alone: There is more commonly some putrid *miasmata* brought from a gaol, hospital, sick room, or common shore mixed with it, that sinks the strength and spirits, and must be at last carried off by the skin. And in harvest, when there are the signs of inflammation, there is at the same time a certain degree of bilious *diathesis* that must be carried off by vomiting, purging, or both. And I shall afterwards prove, that the true simple peripneumony, pleurisy, and angina are not common here in summer and harvest: That the rheumatism in London is not for the most part simply inflammatory after June; nor the phrenitis hepatitis or nephritis: and therefore I infer, that supposing the same ailment in the country, in town, in a gaol, in an hospital, among the labouring people, and those that do not labour, the indications of cure will be partly different, and the treatment ought to be varied according to the season of the year, the degree of inflammation, putrefaction, or bilious collection:

pretty quiet, and with no other complaint than fatigue : however, I give him a vomit if I perceive turgid matter about the stomach, and then wait for the return of the Monday's ague, which I expect later in the evening than it came on Monday, and probably not so severe. If it does not return all the evening, then I am sure that the Monday ague is quite gone, and there only remains a single tertian, or that it is an ague of the quartan kind : However, I go on with the saline mixture and camomile tea, and wait for Thursday. If the Thursday's fit resembles that of Tuesday, then I am in hopes it is but a single tertian ; and if the cold fit is rather more moderate than that of Tuesday, I add some crude *sal amon.* to the mixture, and try to cure that ague without the bark, which is much to be desired, and well worth waiting for. But Friday is the great day that determines

collection : And I have seen bilious fevers that in the beginning required, and were relieved by bleeding ; which afterwards required and were much relieved by vomiting and purging ; but after all were not carried off but by the use of bark, alexipharmics, and sweating ; nay, I have three or four times met with a putrid fever attended with a swelling and stuffing of the throat and neighbouring glands, that went off by a salivation, and foetid breath, as if the patients had taken mercury ; nor did the other evacuations seem to relieve them. *N. B.* The bark was given in decoction with spir. minder. and seemed rather to promote than retard this critical spitting.

every thing ; for if there comes no fit on Friday, it proves that my hope of its being a single tertian, which will do no harm, was well founded ; but if there comes a severe fit on Friday, then it appears that I was mistaken ; for instead of a single tertian, the disease is evidently a double quartan, and it was the Monday ague that came on Thursday, and the Tuesday ague that came on Friday, both considerably increased. Then indeed I wait no longer, but begin the bark as soon as ever the sweating is well broke out, except there is reason to the contrary, as we have said above, and shall see afterwards when we come to the quartan agues. Nature seems to observe a greater regularity in agues than in most other fevers ; for a tertian is seldom found mixed with a quartan, except nature is forced out of her way : Nature mixes a tertian with a tertian, and a quartan with a quartan, so long as the disease remains double ; and at last one of the fevers will stop, and the other go on : a double tertian will end in a single tertian, and a double quartan in a single quartan. It is not common for a double ague, or rather the two agues, to go off together ; but the milder goes first, and the other remains.

But to return to the tertian, suppose there is no fit on Friday, nor before Saturday morning, then I compare that of Saturday

day with the fit of Thursday; it is the third fit of the remaining single tertian; and if it is no stronger than that of Thursday, I expect, by regular diet, warm clothing, exercise, and the use of the above medicines, with a vomit or purge *pro re nata*, to find the fits abate gradually, and to effect a perfect cure; especially if the perspiration keeps up on the well days: To encourage which I order the patients on those days, a basin of the infusion of *scordium* or *veronica* before they get out of bed, and get them to sip a pint of elder flower tea, made pleasant with the *spir. nitr. dulc.* beginning an hour before the fit is expected. These things, simple as they are, moderate the cold fit; and in people of delicate nerves, I have added the *liq. anod. min.* I think with advantage. These are the operations of Sunday and of Monday, till the fit comes on, being the fourth fit, when I expect to find the disease evidently on the decline; but if, contrary to my expectation, there should be more ague than in the preceding fit, I endeavour by all means in my power to discover the cause of it: if I find the tongue still loaded, the breath rank, eructations, bad or bitter taste in the mouth, or signs of collection, I give the *emetico cathar. No. 1.* and then I go on as before. If there are signs of great acidity in the stomach, which I have seen even in harvest, I moderate the quan-

tity of acid in the diet, increase the quantity of bitters, and add absorbents to the mixture; but if there is a great redundancy of glutinous spittle in the mouth, then I try a large dose of the crude *sal. amon.* immediately before the fit, which in that case will frequently succeed; after which I go on with No. 17. as above, and wait to see the fifth fit, which if considerably diminished, I still have hopes of success by this method; but if there is no diminution of the symptoms, and the fit seems rather more violent, protracted, or fatiguing to the sick, I give the bark immediately after the hot fit is over, or the sweat universal, and order an ounce of the powder to be taken before the following fit is expected, observing at the same time all the former regulations of clothes, diet and exercise, and giving the infusions formerly mentioned: Nor do I find that I can depend upon less than an ounce of good bark to stop a well-formed regular tertian in a full-grown person; there will very often be some appearance of a fit about the usual time, and some irregular heat after this quantity of the bark is taken; in which case another ounce must be taken the next day; but if the ague is stopped, half an ounce will prevent it from returning; then three drachms a day, then two drachms a day for four days, then one drachm a day for many days, or indeed so long as the aguish constitution remains; without

without which I find relapses very frequent in agues that have been stopped by the bark; nor do I find that the bark does any mischief when given after the medicines above directed. But if the disease is on the decline, a less quantity will stop it and prevent returns. The same method I have always found succeed in the double tertians, only if I am obliged to give the bark before one of the agues goes off, I begin after the greater fit, because I then expect the longest interval. I find that six drachms will stop the lesser fit, and half an ounce more will generally stop the succeeding fit in this country. In Holland a larger quantity is always necessary, I give half an ounce the next day, then two drachms a day for four days, and then one drachm a day as above. If the bark purge in the beginning, it does no harm, but the fit will return; so that this effect must be prevented by a few drops of *tinct. thebaic.* in each dose; but, on the contrary, if it occasions a constipation, some grains of rhubarb taken with it so as to procure stools, do service, and render the cure more radical. After all that can be said of the bark, it seems rather to stop the effects than remove the cause of the ague; for we have known people that continued well as long as they continued the use of the bark, but had the return of the ague as

soon and as often as they discontinued it: We have also known these very people radically cured by sea-voyages, by long journies, by mineral waters, by other bitters, by neutral salts, and by powerful deobstruents.

In the year 1749, I thought I could cure the most inveterate agues by some vomits, sal ammon. camomile flowers and goats whey: At that time there came over into the country where I then lived, a great number of invalids discharged out of the Scots brigade in the Dutch service, for the most part such as were reckoned incurable in Holland, after trying all manner of remedies: I cured them all in a short time radically. I carried my journals with me to West Friseland, and expected the same success there; but in three months time I was convinced that the poor soldiers were cured rather by the climate than my medicines: From this, and from many other observations made at different times, I am convinced, that the more damp the air, the more necessary the bark, and the greater quantity is required: That when the weather is very wet and cloudy, the diaphoreticks, theriac, and some alkaline salts may be necessary with the bark: That in such weather blisters very much assist the cure: That on the contrary, in dry, clear, or frosty weather, with northerly or easterly winds, nitre, rhubarb, nay, bleeding, may
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be necessary with the bark, and will assist it to cure the ague radically. Upon reviewing my journals for the last seven years, I find but few summer fevers that came to a true regular ague before the end of the dog-days; nor do I find any quartan before the autumnal equinox. In some years I have had many agues, but no quartans; and from this I conclude, that quartans are not so common in London as I have seen them in Holland.

I have said above, that when I find the fever terminate in a well-formed quartan, single or double, I have immediate recourse to the bark, because I know nothing else that will cure it: I have tried to anticipate the hot and sweating fits by plenty of thin diaphoretic infusions, and whey, after vomiting and purging; and by the help of some spir. minder. and many bed-clothes I have brought on profuse sweatings, and so retarded the fit of a quartan; but I never saw any advantage from it: on the contrary, the fit came on with greater severity. I have seen a double tertian radically cured by taking two drachms of sal ammon. in a basin of white-wine whey, just in the beginning of the cold fit, and plenty of a diaphoretic infusion afterwards in bed: and indeed there are few double tertians that will resist the third trial: But I always saw even this method disagree with
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the true quartan single or double; I therefore for some years past have not used it in quartans: In tertians, when they remain long double, if the patient is fat, bloated, phlegmatic and young, I still try this Dutch practice with success. The objections to it are, 1st, Some stomachs cannot bear it. 2dly, If the first or second trial does not cure the disease, the sick frequently refuse to make the third. 3dly, Sometimes, though seldom, it will fail; and you are obliged to have recourse to the bark at last. 4thly, Three or four times I have observed that it left a weakness in the stomach, to cure which I was obliged to give the bark with rhubarb in bitters. But to return to the quartans: Agues of this class I propose to stop by the bark (if there is no very good reason to the contrary) as soon as they are well formed; first, because I know nothing but the bark that can stop them with certainty: And secondly, because I do not expect the same advantages from the quartans, that are derived from the tertians. A quartan is not a depuratory fever; on the contrary, if the cure is left to nature, or if it is attempted without the bark, it will in most people continue so long and with such severity, that the strongest constitution may be destroyed by it, and many chronic ailments brought on; nay, the sick may die in the fit, particularly if they are old or infirm,

infirm, and if the season is cold, the weather wet, and the apartments damp. It is true that I have seen signs of obstruction after the stopping of quartans; but I never saw No. 6. fail in removing them: The ague indeed returned, but it returned a tertian, and was cured by a continuation of the deobstruents and bitters.

Some gentlemen of the greatest experience in practice in the aguish countries, have assured me, that on some strong young people who were seized with quartans before the season was far advanced, they had tried all means, and waited long in hopes of bringing the quartans to tertians; but that they seldom found any advantage was obtained; that the disease became more obstinate, and they were obliged to have recourse to the bark at last; the recovery was more tedious, and left more of an aguish disposition behind: They therefore gave it as their opinion, that a harvest fever, treated from the beginning like a bilious fever, coming to a formed intermittent of the tertian kind, should be cured, if possible, without the bark; but for an ague of the quartan kind, the bark should be given without loss of time, in a large quantity, between the fits, and long continued, unless there should be some particular reason to the contrary. If the season is not far advanced, one ounce and half of
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good bark will stop a fit of a quartan, and the cure will be completed by giving half an ounce a day afterwards till four ounces are taken, including the first ounce and half; and then two drachms a day for seven days more; during which time every purging that may happen must be stopt with some warm opiate taken with the bark; but if a stool is wanted, some spirituous tincture of rhubarb in small doses should be given with it, which will not retard its operation. In the French Netherlands they use an electuary, No. 18. (called *L'opiate de Mr. Le Catt*) with very great success; of which they give a drachm every three hours night and day till the ague is stopt; and then every four, five, six hours, gradually increasing the interval till they come to take it only once in three days: I have given it here frequently with good success. But now I am speaking of the bark, let me observe, that great care should be taken in the choice of it; for there are more frauds committed in this, than in any other simple I know. The same method will do for the agues that are formed from the beginning; first, we must consider whether bleeding is necessary, then clear the first passages as soon as possible with No. 1. and afterwards proceed as above; but when the season is far advanced, and when the ailments (as Hipocrates says) are

are above the diaphragm, then the agues require a different treatment; because they are most probably complicated with the atra-bilious, or a *peripneumonia notha*, of which ailments there is a considerable variety every year, as I hope to demonstrate afterwards: In the mean time I shall only observe, that the infarction and cough are, in the beginning of the season, partly bilious; and then vomiting, purging, and acids are proper: secondly, when the season is farther advanced, the acids (ripe fruit only excepted) do not succeed so well as the diaphoretics, and sub-acids, and frequent little sweats give relief; but in the latter end of this constitution, the brisk stimulating medicines and the alkaline plants are frequently necessary, except the dry easterly winds and frost come on, in which case the true inflammatory ailments will certainly supercede the others. This may be observed every year, though these alterations do not always appear exactly at the same season, but sometimes occur in one month, sometimes in another, owing, I suppose, to the uncertainty of the weather in this country, and the difference of the fruits and grain in different years: they occur however in the following order; first comes the *peripneumonia notha biliosa*; secondly, *atra-biliosa*; thirdly, *Sydenhameama*, or *puitiosa viscida*, or *glutinosa spontanea*. Then, when the weather

ther is very cold and sharp, comes the *pleuritis spurea*, and the *peripneumonia semi-acuta*; feldom the *vera inflammatoria*, except among young or labouring people, or such as take severe exercise, till after Christmas. The *anginas* observe the same course exactly, and sometimes attend the peripneumonies of every kind; but they commonly go first off, and leave the peripneumony, especially when ill treated. Here then is the reason why coughs and colds are said to go off so many different ways; some by a bilious diarrhœa, some by profuse sweating, some by a critical eruption on the skin, some by a critical aphthæ, and some by a critical hemorrhage: Hence the same person is subject to a return of the same cold and cough at one season of the year, which comes and goes off nearly at the same time and in the same manner annually. What then must we think of those who administer a spirituous tincture of balsamics in every cough, in every constitution, in every season of the year, and in every time of life? I am very certain that coughs and infarction of the lungs, are not so simple in themselves as is commonly imagined; and that they are frequently complicated with other diseases, as we shall see in their place; at present I say that the winter coughs are frequently complicated with the ague, and that such an ague may require a treatment different from

from what I have laid down above ; because in this case the peripneumony is the principal complaint, and the ague is only a secondary consideration : This makes it impossible to lay down a course for the cure of agues, and demonstrates the absurdity of a man's pretending to cure one ailment only ; for such is the nature of medical knowledge, that he who does not understand all ailments, must be deficient in the true knowledge of every one : For as in the early harvest season the ague was complicated with the bilious constitution, that is, with the diarrhœa, dysentery, aphthæ, bilious fever, or erysipelas ; so in the latter season the same ague may be complicated with various kinds of the *peripneumonia notha*, (seldom with the *vera inflammatoria*,) with the various kinds of the *atra bilis*, *morbis hypochondriacus*, and *hystericus cum materia* ; piles, and the gout.

I will conclude this chapter by a quotation from Dr. Alston, viz. his XLIX. Lecture on the Materia Medica.

“ The Peruvian bark is given in powder to ʒij, in infusion or decoction to ʒss, in extract to ʒj. Of spirituous tinctures ʒj. cannot be well exceeded as a dose, or at one time : or rather, the dose being to be repeated sometimes twice or thrice a day, it ought to be given in such quantities, and
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at such intervals, as the sick can bear, and the disease requires.

“ But to be more particular: In intermitting fevers the dose of the bark is of three kinds: 1. The quantity that can conveniently be taken at a time (with regard to which it differs not from other medicines of the like specific gravity); ʒj. need seldom be exceeded. 2. The quantity sufficient to prevent the return of the next paroxysm; and this varies according to the genus of the fever, a quotidian commonly requiring at most pulveris ʒij. a tertian ʒß. and a quartan ʒj. These divided into drachms, or into smaller quantities, and taken at proper intervals during the intermission, will seldom fail to answer this intention, and give time to take the third dose; that is, as much as is necessary to prevent a relapse, or complete the cure. In order to which, quotidians commonly require pulveris ʒj. tertians ʒij. quartans ʒiij. vel iv. including what was taken to prevent the first paroxysm, and giving of what remains ʒj. or so, twice, thrice, or four times a day, till all be consumed. And there being here more danger in the defect than excess, it is sometimes necessary, and always safe, after a week or two, to repeat this third dose once or twice in quartans. Smaller quantities indeed frequently suffice, much depending on the
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state of the sick, and of the fever. But if, after all, the ague returns, it is certain the bark has been given too soon: and without suffering the paroxysms to continue for some time, and using other remedies, it will be in vain to attempt a cure by it, and much endanger the patient's constitution. As for the quantity of it to be taken in decoction, &c. I can only say, that when an ague is thus to be cured, the use of it must be continued till that end is accomplished, be the quantity what it will.

"The powder may be taken in wine, or made into an electuary or pills, as the patient likes best, and a glass of wine taken with every dose. Any syrup may serve as a constituent, without any other addition, unless it be laudanum to prevent its purging. "Cum sane, qui aliquid cortici adjiciunt præter vehiculum eidem in ventriculum transmittendo necessarium, aut ex ignorantia peccant, ut mihi videtur, aut dolo malo, a quo vir probus ex animo abhorrebit." *Sydenham Epist. resp.*

1. 308. The extract is drawn first with *sp. vini rect.* and then with water. What is meant by *salis tartari parum*? *Ph. Ed.* 149. The *New London Dispensatory* takes water only, and repeats the decoction till the liquor remains transparent when cold: A tedious process! The *Cod. Medic.* makes the decoction in wine and water for two

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hours (in *edit.* 1748, water only is ordered, vide p. 56.) and once only. I would prefer digestion in brandy to them all.

“ That the bark may be too soon taken in agues I think is both consistent with reason, and confirmed by experience. I know the contrary is the opinion of some learned physicians; for, say they, the longer the disease continues, the patient is the more weakened, the cure the more difficult, and the consequences the more dangerous. And indeed, if such fevers were always hurtful to the constitution, and it suffered more by their continuing any time, than by their being stopped in the beginning, it could not be given too soon. But this is not the case: they are not seldom to be looked on as remedies, rather than as diseases. As in the gout, the pain, inflammation and swelling of the feet are not the main disease, but a critical metastasis, in order to its cure; so intermitting fevers are commonly the instrument Nature uses, or the consequence of the effort she makes, to concoct or expel something, which otherwise would prove more hurtful and perhaps fatal. And though this should not be the case in every ague, yet certainly it is in such as are properly called sympathetic, where the ague is not the principal disease, but Nature's attempt to cure it. In such cases Nature is to be assisted, not disarmed,

disarmed, or deprived of these salutary paroxysms, till the main enemy is overcome; and then she will easily be prevailed on to quit her weapons, and the fever may safely be cured. Agues have rectified many faulty constitutions, and cured many obstinate diseases, which all the power of art could never otherwise have reached. Mr. A. K. a student in medicine, about 20 years old, in November 1724, was seized with a tertian. The first day he had a very regular fit; the second he was quite free of the fever and very well; the third a paroxysm somewhat more severe than the first; for it (or the third, I do not well remember which) began with vomiting, which brought up more than a pound of undigested and mucous stuff; and then followed the cold, hot, and sweating fits in their order. The free day following he took a dose of ipecacuanha, which operated very well, but no mucus appeared. The next paroxysm began as the foregoing did, with vomiting up an equal quantity of the mucous stuff; and this he continued to do for ten or fourteen days, (using some bitters and a good diet all that time) throwing up more or less of the mucus every fit. At last it disappeared; and after a paroxysm or two more, he being very desirous to follow his studies, I allowed him the bark, and he was very well all the winter.

He had been for several years threatened every spring and autumn with a consumption: on this account I advised, among other things, that if the ague returned, as probably it would do in the May following, he should take care not to put a stop to it during the summer; but if it continued till autumn, or if it went off of itself sooner, that he should then take the bark, and it would confirm his health. About three or four years after, he came again to town, and told me that his fever had returned that May, that he had followed my directions, and been ever since in perfect health. His looks were so much altered for the better, that I scarcely knew him at first. Now could it have been of any advantage to this gentleman to have given him the bark sooner in the autumnal, or in the beginning of the spring ague? Certainly not. It cannot, at the same time, be denied, that the bark has been given with safety and success in idiopathic agues in the very beginning, especially when epidemical; but I always thought there was less danger in giving it later than was necessary, even in such agues, than in giving it too soon: for as it is a good constitution indeed which cannot be made better, so I know no way we can discover, with so much certainty, the nature and tendency of the disease, as by a careful observation of its symptoms and

and progress during the course of several paroxysms.

“ I shall conclude, as Dr. Willis does, with some remarks on the same subject. “ Nunc
 “ autem hic pulvis Peruvianus sit unicum
 “ adhuc repertum febris quartanæ alexi-
 “ terion, quod nimirum ipsius aliarumque
 “ intermittentium paroxysmos (licet solum
 “ pro tempore) inhibet: attamen dubi-
 “ tandum non est, quin alia in rerum
 “ natura extent medicamina, quæ sunt
 “ æque febrifuga; atque sperandum erit
 “ ut novi hujus inventi exemplo ducti, ad
 “ explorandas herbarum virtutes adhuc
 “ fere ignotas excitemur: ita dum singu-
 “ larium tentamini insistimus, et medicinæ
 “ rationali, empirica adjungitur procul
 “ dubio quartanæ, aliorumque hercu-
 “ leorum morborum curationes feliciter
 “ procedent: quod eo lubentius sæculo
 “ huic, aut saltem posteris spondeo; cum
 “ manucente corticis istius analogia, me-
 “ dicamentum ad profligandas febris non
 “ contemnendi usus, ipse non ita pridem,
 “ varia præcurrens adinvenerim quod
 “ etiam pauperioribus quibusque, succe-
 “ danei vice, bono cum successu, propinare
 “ soleo.” *Willis de Feb.* cap. 6. The bark
 has likewise taught us, that where ʒj. or
 ʒij. only gives respite for a time, ounces
 will make a cure. If therefore other al-
 teratives were given in such quantities,

it is not improbable that greater cures might be performed by them. "Cl. D. D. Elifha

"Coysh, vir integerrimus, & medicus expertissimus, sapius sincero animo mihi
 "asseruit, sese vires florum chamæmeli,
 "subtilissime pulverisatorum, in vehiculo
 "convenienti exhibitorum, atque post
 "debita intervalla repetitorum æque felices
 "ac certas in hoc morbo debellando expertum fuisse, ac ipsius corticis Peruviani."

Morton. de Feb. c. 6. p. 43. who likewise says, that by a powder made flor. chamæm. p. ii. salis absinthii, & antimon. diaphor. aa. p. i. he cured three intermitting fevers on which the bark had no effect, the only instances in which he ever found it fail. Wormwood-ale, made by infusing the absinthium vulgare in small ale, cured many country people, when the ague was amongst us. And it is not improbable that many other bitters, especially if subastringent, as cortex fraxini, chamædrys, &c. given as the bark is, might prove very successful in this as well as other diseases. *Sed extra oleas feror.*"

A country gentleman assured me that a well-formed ague is frequently cured by the following bolus taken after the fit, and repeated every eight hours till the next fit is expected. He assured me that he had not at that time seen it fail, and that three
 such

such doses generally performed the cure.
He never saw more than six required.

Take a large spider, bruise it, and mix
it with currant gelly to make a bolus.

OF THE
INFLAMMATORY CONSTITUTION.

THE predisposing cause of inflammatory diseases is a phlogistic or inflammatory state of the blood, which is most common when the sky is clear, the barometer high, and the wind blows from the north or north-east, or any point between them; especially if cold is superadded; circumstances which prevail in this country from the middle of December to the middle or end of June.

The persons in whom this state of the blood is most likely to prevail, are those in the bloom and vigour of life, who eat heartily of plain nourishing food, whose digestion is speedy and perfect; and consequently produces much blood in a short time; labouring people who live full and well, the inhabitants of high and dry countries, which lie far from the sea-side, young women of all countries, and especially those that are pregnant.

The degree in which blood is inflammatory or phlogistic, cannot perhaps be exactly ascertained by the fizy crust called *buff*, which is formed upon the surface
after

after venesection; because much depends upon the idiosyncrasy of the person; yet I think those who adopt a prevailing opinion, that nothing can be learned by inspecting the blood taken away in fevers, upon a supposition that the buff is owing altogether to the stream in which it runs during the operation, judge hastily. If the blood of a person in good health flows in a full stream, it will have less or more of this appearance; if the same blood is stirred with a stick during the operation, and for a short time after it is received into the basin, this appearance will be increased; but if the same motion is long continued, the texture of the blood will be quite broken and the whole turned into a liquament. Putrid diseases seem to have something of the same effect, and to destroy the texture of the blood; and therefore, blood drawn towards their decline will not form this crust, in how full and free a stream soever it shall flow; nor even if it is afterwards stirred in the basin. Hence I infer, that to form this crust, a certain degree of texture in the blood is necessary, as well as a certain degree of motion; either of which being wanting, the crust cannot form. In some cases, where the inflammation has run very high, I have taken pains to make the blood run softly down the arm into the basin; but it has still looked
bluish

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bluish before it became quite cold, and the buff has been very thick afterwards. Some blood, like that of a lamb, is so tender, that by stirring it with the finger, the *crassamentum* and *serum* may easily be mixed. Some has a firm strong texture without the buff; so that the *crassamentum* may be taken out without staining the *serum*; and of some, though it may have a greenish buff on the top, the *crassamentum* is so loose and dissolved at the bottom, that it will stain the *serum* upon the slightest motion. In examining blood by the touch, I can perceive as great a difference as between the flesh of a ricketty, and that of an healthy child. If equal quantities of milk are taken from different cattle, and warmed to the same degree, and an equal quantity of the same rennet put into each, one may form a strong curd, the other a loose one; they will also differ in the quantity of curd. By this one may form some judgment of the age of the milk from calving, and of the health and food of the cow. In like manner, by examining the blood taken from a person in a fever, although we cannot exactly determine the degree of inflammation, because that will depend upon the other circumstances of the party; yet it is one of the best means in our power to discover whether it is, or is not, in a dissolved or inflamed

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inflamed state; and by knowing the texture of the blood, we are in some measure enabled to judge of the state of the solids or vessels that fabricated it.

For some time before an inflammatory fever, there is a sensation of weight, oppression, or flying pains: if the vessels are then well emptied, either by bleeding or abstinence, the fever is frequently prevented. The blood taken in the beginning has but little size; but after the fever has lasted a few days, it has a great deal; so that the fizy appearance of the blood seems rather to be the consequence than the cause of the fever. But phlogistic blood is very elastic and capable of great expansion; by which means the vessels may still remain full, and the pulse soon become hard and firm after large and repeated bleedings, if the heat continues, and the obstruction to the free circulation is not removed. Suppose *e. g.* that a body in the natural state was to contain $\frac{3}{4}$ 100 of blood, and that this quantity required as many cubic inches of space in the vessels; it is evident that if the heat should be increased ten degrees, the vessels must undergo a proportional distension. In such a case, if $\frac{3}{4}$ x of blood is taken away, the vessels would still remain distended to their natural degree, and the patient would feel relieved from the anxiety occasioned by the preternatural distension.

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distension. But suppose the heat should again be increased ten degrees more, then it may be necessary to take $\frac{3}{4}$ x more blood away, to restore the natural equilibrium between the blood and the containing vessels. But if by any means I can prevent this increase of heat, and remove the obstruction that occasions the resistance, I at the same time prevent this preternatural distension of the vessels, and render the second bleeding less necessary.

To form a just idea of inflammation, such as we find it every day, we must divide it into two kinds; the first may be called single, and the second complicated. By *single inflammation*, I mean a fever brought upon a plethoric habit, by the mere abuse of some of the common nonnaturals; and, by *complicated inflammation*, I mean a fever brought upon a plethoric habit by some morbid lentor superadded, which, by its stimulating qualities, increases the heat and motion of the blood.

1st, Single inflammation then is preceded by a sense of weight and oppression, and a kind of anxiety perhaps for some days together before it can be called a stated fever; these only constitute the *terrentia morbi*, and are, for the most part, neglected till a degree of rigour comes on, with a considerable increase of pulse and quantity of motion in the blood: although
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the pulse is not so quick as in many other fevers, yet the *momentum* is great, because the vessels are strong, and the blood dense.

If at this first stage of the stated fever, the plethora is taken off so as to restore the equilibrium of the blood and vessels, before any considerable phlogistic lentor is produced, the whole ailment goes frequently soon off, and Nature resumes her functions; but if this increased motion is suffered to continue long enough to create a considerable quantity of phlogistic lentor, then the evacuations will still give relief, but the fever must proceed for some days longer to concoct and expel the morbid lentor, before health can be restored.

Now, the operation of coction * is performed in the vessels in this, as in all fevers, by

* The word *coction* was used by Hippocrates and his followers, the *systematics*, to express that alteration which the vital and animal powers performed upon every heterogeneous substance when mixed with the blood, by which two things are obtained: 1st, the assimilation of what is wholesome; and 2^{dly}, the expulsion of what is noxious, *e. g.* if I eat meat, fruit, bread, or greens, any one of them affords me nourishment; not that they are all of the same nature, but that my organs are able to concoct them; that is, to turn them into my nature, and then to extract out of any one or all of them, what is salutary for me, and discharge the recrimentionitious part: nay, every organ seems to have something of this power or quality, and

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by a certain number of revolutions: but the expulsion of the morbid lentor after coction,

to extract its own likeness out of the common mass of nourishment: a bone will shoot a granulation of osseous flesh, a muscle of muscular flesh, or a gland of glandular flesh.

Our aliment then is taken down crude, is digested before it enters the common mass of circulating fluid; is concocted before it becomes nourishment, and the remainder is elaborated before it is excreted, insomuch that it has lost its own natural appearance, and is become a *tertium quid*. But during this operation, of digestion, coction, and expulsion, there is a species of fever or disturbance in the body. In like manner Nature deals with a morbid lentor, whether, as Celsus says, it arises from an evident and known cause, or from an obscure and unknown one.

When Nature is strong enough to perform both coction and expulsion, then she is conqueror, and health is restored; but when Nature is too weak to perform coction, then the morbid lentor is conqueror, and death ensues. In either of these cases, the crisis or *judgment* of the ailment is perfect. In some cases, Nature is able to perform the coction; but so fatigued by the conflict that she cannot perform the other, *i. e.* the expulsion: then the crisis is imperfect, and a new ailment may come on. In many cases Nature performs coction and expulsion partially; so that some part of the offending matter may be conquered and expelled, but still there will remain crudity enough to keep up the conflict; (this gives another idea of imperfect crisis) which must be frequently repeated before the victory is complete. According to this doctrine it is evident, that the violence and duration of the conflict will depend, *1st*, upon the nature of the morbid lentor, compared with the powers of the concocting organs; and, *2^{dly}*, upon the various combinations that happen to take place during the beginning state, or decline of the conflict.

Having

coction, is performed in two ways: the first is, by the natural emunctories of the body common to all fevers; the second, more peculiar to this species of fever, *viz.* by a phlegmon or deposit of matter in one or more parts, where a suppuration is to take place, and the concocted lentor is in part to be gradually evacuated by an ulcer, which seems to co-operate with the common emunctories; being as it were an additional outlet for the redundancy of the

Having thus laid down the general doctrine, Hippocrates proceeds to enumerate all the appearances which generally attend a perfect salutary crisis, an imperfect salutary crisis, a fatal crisis, an imperfect crisis, which may be productive of a new ailment, or prove fatal in the end. Then he goes on to enumerate the appearances which in general foretel each of these crises, and the days upon which they may, for the most part, be expected. Last of all, he considers each ailment distinctly, all the symptoms which distinguish it from every other ailment, and all the appearances which he had observed to be salutary or dangerous in it, and only transiently mentions such regimen, medicine, or operation, as he had observed to forward the salutary appearances, and retard or remove the contrary, always endeavouring to aid Nature in her own way, and not to cut out a new road for her; he never hurried her to perform coction, never forced her to perform expulsion, till she had first of all given the signs of coction: for, in every ailment, he found that coction ought to be first performed; but after coction, then expulsion was to take place, and the morbid lentor, now concocted, was to pass through that outlet which Nature should point out, or repeated experience had proved to be the most salutary in the particular complaint.

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pus to be evacuated. In a single inflammatory fever, the increased motion breeds size, size concocted breeds pus, pus so bred must be evacuated by the common emunctories; or, if very redundant, by an ulcer on some of the external or internal surfaces of the body, or by both together, or by a succession of the one to the other. I have seen many instances of this succession, to which I find the name of *febris purulenta* has been given; it happens when, after coction, some part of this pus has been retained in the body, and there become acrid, so as to produce a fresh stimulus, and a renewal of the fever, which again required a second coction and crisis. We have reason to believe, from repeated observation, that a single inflammation will give signs of coction within fourteen days at farthest from the first rigour, frequently in three days and a half. As soon as these signs appear, there is a great abatement of the fever, because some part of the morbid lentor is concocted and even evacuated. But a careful examination will discover, that as the whole of the morbid lentor is not concocted and evacuated, the whole of the fever is not gone. I say then, that upon the first day of the crisis, coction is begun; but coction and excretion must continue some days successively before the whole morbid lentor is concocted, and the blood properly

properly depurated. The whole fever may be divided into two stages; the first is before coction begins, and is the crude state: the second is after coction has begun, and may be called the suppurating state, during which the phlogistic lentor is concocted, or converted into pus, and gradually evacuated as fast as it is properly elaborated. During the stage of the suppuration, if the excretion of the pus is hindered by any error, the signs of crudity return immediately. This is allowed by all; but I say, that if any one critical excretion is pushed beyond a certain degree, the sick will feel great loss of strength, and some signs of crudity will also return; by which it appears, that during this stage, which frequently lasts many days, it is injurious to precipitate the operations of nature as well as to retard them. The same observation is true in phlegmons, whether artificial before coction, or natural after coction. If a deep incision be made in a fleshy part, during the crude state of an inflammatory fever, no laudable pus will be procured till after coction begins; nay, an old issue which had been used to discharge laudable pus every day while the subject was in good health, will, as soon as the crudity comes on, become dry and black, and discharge only a thin sanies or serum, till coction takes place, and then it will again become
I moist,

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moist, and discharge pus very freely: In like manner, when nature inclines to form a phlegmon any where, a painful, throbbing red tumor is perceived; if it is opened immediately, in hopes of promoting suppuration, the cure will not be forwarded, but rather the contrary; whereas if coction is patiently waited for, this tumor will suppurate and discharge real pus, with great relief to the sick. If after this phlegmon comes to discharge freely, very acrid substances are applied, in hopes of procuring a vast discharge of pus to alleviate the other symptoms, another disappointment will ensue; for the discharge, however copious, will be of sanies only, and not pus; whereas, if the ulcer be kept soft and warm, it will spontaneously discharge that quantity of pus which nature requires, and the strength of the patient will rather be increased than diminished by the evacuation. Laudable pus, in its natural state, is a mild soft fluid, and will retain these qualities a long while, if suffered to remain quiet and covered from the air; but if it is much moved in the vessels, or suffered to come into contact with the air, it soon becomes very acrid and stimulating. The natural termination of simple inflammation is the formation of mild pus, either in the vessels or in the cellular membrane; and seldom occasions gangrene, unless the phlegmon is formed
upon

upon some membranous, rigid, or very nervous part; but it is quite otherwise in *compound inflammation*, because there the pus is mixed and contaminated with an heterogeneous matter of a more acrid nature. Thus, *e. g.* if, during the inflammatory constitution, a man in perfect health and the vigour of life, is infected with any contagion, an inflammatory fever is brought on, which may require an antiphlogistic treatment; at last a critical phlegmon is formed, that is, a burning, hard, red, painful, throbbing tumor; but presently this tumor, instead of coming to a kindly critical suppuration, may become a real gangrene, or ill conditioned ulcer, and a great part of it must be separated, or sloughed off before a proper suppuration can be obtained; nay, perhaps it will scarcely suppurate kindly, before the contagious matter is evacuated; and the matter which flows from it always contains the seminum of the original contagion. If this morbid lentor is deposited in the glans of the groins, armpits, or under-jaw, still the same doctrine may take place; nothing will be gained by forcing the tumors to discharge, till coction has preceded; that is, nature must first of all separate the morbid lentor from the sound juices, and deposit it, mixed with the pus (or concocted phlogistic lentor which was bred during the fever) upon the phlegmon, there to under-

go still another operation before it can be regularly and properly evacuated. All the inflammations of a malignant kind are similar in this; and it must ever be remembered, that in them the whole crisis cannot always be performed by the common emunctories, but some part must be performed by a phlegmon, *sui generis*, according to the nature and quantity of the malignant lentor.

It is evident, therefore, that in all compound inflammations, two things are to be considered; first the degree of inflammation, and then the nature of the superadded heterogeneous stimulating cause. I have put the degree of inflammation first, because it ought to be so in practice. Suppose a venereal inflammation so considerable as to occasion all the symptoms of an ardent fever; it would be madness to give the specific before the inflammation had been removed, either by resolution or suppuration. In all contagious distempers, the common course of Nature to rid herself of the malignant miasmata seems to be this. The miasmata taken into the body, stimulate the heart and vessels to frequent and violent contractions, by which a certain quantity of phlogistic lentor is produced: by this the malignant miasmata are inviscated and entangled, and are at last evacuated in the form of pus, with concocted lentor. This
seems

seems to be the origin of the *gonorrhœa virulenta*, pustules of the small-pox, bubos, parotides, and the like, by which Nature throws off the virulent miasmata, not being able to alter their quality. - No wonder then if the pus proceeding from such phlegmons should be malignant and contagious, being impregnated with a *virus* which the force of our vessels cannot subdue. The cause of a malignant distemper, therefore, is a morbid matter which the natural powers may be able to expel, but cannot correct. If it is asked, *Are all malignant fevers owing to external morbid miasmata taken into the body?* I answer no; for bile, milk, lochia, and every other juice may be so corrupted as to acquire a certain degree of malignity. All our juices in their natural uncorrupted state are easily changed, and afterwards evacuated by the organs appointed for these purposes, as long as these organs are capable of performing their functions. If they are by any accident retained, they frequently remain long in the body without occasioning any fever, as we see in icteric cases; but their nature may be so altered by improper drugs and regimen, as to acquire qualities capable of producing malignant and contagious fevers; such as some sorts of purpura and dysentery.

In conducting single inflammatory fevers, the first consideration is, whether Nature

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seems disposed to form a local deposit. As long as the fever is without acute seated pain, although it should run high, there is reason to expect no local phlegmon; however, as the violence of the fever may endanger the tender parts, particularly the brain, the same methods may be necessary to moderate the impetuosity of Nature, as if an internal phlegmon was threatened. This is the true *ardent inflammatory fever*; although Hippocrates, *De Morb.* lib. i. sect. 27. mentions another ardent fever with cold extremities, which he calls *Καυσος*, because all the heat is internal. He has observed this symptom also in bilious fevers; but they terminate differently; for the inflammatory *causus* terminates like a pleurisy, by a peripneumony, and expectoration of concocted pus, unless the patient should perish by the violence of the fever, before Nature has had time to perform coction; whereas the bilious *causus* terminates by vomiting within the first five days, and by a flux afterwards.

This *ardent* fever is easily distinguished from the putrid fevers by the violence of the pulse, and surprising dryness of the skin, nose, mouth, and bowels; and the universal deficiency of secretion. In the course of this fever there are some small abatements of some of the symptoms, but scarce enough to deserve the name of good remissions; for the hardness of the pulse, and
confu-

confusion of the head, never are diminished till the disease begins to subside. There has been no difference of opinion about the method of conducting this fever since the days of Celsus. The *antiphlogistic method* must be persisted in according to indications, during the whole time of crudity: the pressing symptoms must be moderated, and the secretions and excretions diligently watched, waiting patiently till Nature performs coction, without rashly precipitating or retarding any of them. Every body talks of the antiphlogistic method, but every body does not understand it: I will, therefore, give some account of it now, to save trouble afterwards.

A true *causus*, or ardent fever, is peculiar to the plethoric, vigorous and young; to persons whose blood is rich, whose vessels are elastic, and nerves well strung. This point of perfect health was counted dangerous by Hippocrates, because the body must of necessity undergo continual alterations; and as this state cannot change for the better, every change must be for the worse.

It is evident, that if a fever of any kind is kindled in such a constitution, and lasts for any considerable time, it must breed a vast quantity of size, or *phlogistic lentor*; and, consequently, occasion a difficult circulation, and great variety of obstructions; to prevent which no time must be lost, the vessels must be emptied directly by large and repeated

bleedings, till the pulse becomes more soft; the body must be kept open by such medicines and clysters as do not irritate; the remaining blood must be diluted by watery liquors, and the most cooling thin diet; the fibres must be relaxed by the tepid steams of water and rest; the nerves must be soothed by soft emulsions, the thin juice of ripe fruits, great quiet, free temperate air, and moderate light; and the rapid motion of the blood towards the head must be diverted downwards, by the erect posture, for some hours at least every day.

All the medicines which may be called antiphlogistic, are the soft mucilages and farinacea much diluted, thin rennet-whey, sugar, honey, ripe fruit and nitre, all much diluted; nor ought any other to be used before the violence of the disease has subsided; then, indeed, the symptoms abate, and the moisture of the nose, mouth, skin, bowels, or kidneys, foretels the approach of coction, which must take place in spite of all that has been done. After this, Nature must be supported a little by mending the diet; and if the pulse becomes languid, some calx of antimony, and even camphor much diluted, may be added to the former medicines: but if Nature should be torpid towards the eleventh and fourteenth day, the stimulus of a blister may do service: but although these last may be necessary in some few cases, towards the
decline

decline of the disease, when Nature is much fatigued by the violence and duration of the conflict, yet they are by no means antiphlogistics; because given earlier, or about the state of the fever, they would probably do great mischief. Most commonly about the conclusion, there comes on a critical salutary sweat; a flow of concocted urine, or stools with great relief: they must not be checked, but great care must be taken not to force them beyond a certain degree. This practice of giving heating drugs in inflammatory distempers, is now pretty well exploded; and people are not so much afraid of free air, and the erect posture, as they have been: but there is an error of a different kind which still remains to be corrected; the giving of antiseptic medicines in the stead of antiphlogistic. Thus the rough acids of the unripe fruits, or of the mineral kingdom, which are found to moderate the heat and anxiety of the putrid summer fevers, are frequently employed in the true inflammations of the spring: but surely it should be considered, that in a putrid disease, the danger arises from the solution of the blood, and the relaxation of the solids, and that the danger of inflammation before suppuration arises from an opposite cause, the firm texture of the blood and solids; for dissolved blood, and relaxed solids, the
rough

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rough and mineral acids, the bark and cooling astringents, are proper : but a firm texture of the blood and solid requires other medicines ; and as antiseptics are not proper in inflammatory diseases, neither are antiphlogistics in those that are putrid.

Soon after coction begins, there generally comes on a chilliness, or degree of a *frigus febrile*, with some horror, but not much rigour : this is succeeded by an additional heat and exacerbation of fever ; and without it the crisis is seldom perfect. This heat, or *perturbatio critica*, is the end of the first or crude stage of the fever, and the beginning of the second, or suppurating stage ; for, if Nature is not overweakened, the coction will regularly succeed this *exacerbatio critica*, and pus will be evacuated by some of the common outlets in a short time : no attempt, therefore, should be made to reduce this heat by such evacuations as were necessary in the beginning and crude state ; by such practice the operations of Nature are retarded, and the fever rendered tedious and anomalous : all that ought to be done is, to dilute plentifully, that the pus, being rendered thin, may pass off easily through the different strainers. From that moment the excretions should be carefully examined, and that secretion which seems to be deficient, ought to be gently promoted, to render the
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the crisis as perfect as possible, care being taken at the same time, not to retard that which gave the first and greatest relief in the beginning of the crisis.

Sometimes this suppuration and expulsion will go on regularly to the end of the fever without any return of chilliness: but I do not remember to have seen a perfect crisis which did not begin first by a sense of creeping coldness, then an increase of heat, and afterwards signs of coction, either by sweat, stools, urine, or saliva. This is my idea of resolution; for although some inflammations may be carried off in the very beginning "*through the open orifice of the vein,*" as Sydenham expresses it, without waiting for either coction or crisis; yet that can only take place before the formation of much phlogistic lentor; so that if a fever has lasted only a few days, it must undergo some sort of coction and crisis.

The bark given as soon as there are signs of coction, is frequently pernicious, and in no fever more than the simple inflammation, especially when it is likely to go off by the natural emunctories.

When with the fever there is a throbbing seated pain in any part, there is great reason to conclude, that Nature is meditating a deposit of some part of the phlogistic lentor there, whence it may at length be evacuated by an ulcer; such an ulcer, therefore,

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therefore, may be considered as a new emunctory; and as it frequently supplies a deficiency in some other, ought to be encouraged, provided only that the seat of the impostume be a part that may suppurate without danger, as the groin, &c. if, on the contrary, it be of a very membranous or nervous texture, such as the testicles, the suppuration must be prevented, and the phlegmon resolved; which, however, is the less of two evils; for it frequently retards the crisis, or renders it less perfect. Thus when an inflammatory lingering fever is brought on by repelling the milk, and a critical depomite of the morbid lentor is made on one or both breasts; the use of repellents frequently prolongs the fever and endangers life; whereas, if the parts are poulticed, and suppuration promoted, the whole goes off kindly by an impostume, which, however, should not be opened before it is quite matured, except the hectic fever demonstrates that the pus begins to be reabsorbed. When a phlegmon is to be resolved, or a suppuration prevented, it can be attempted only by diminishing the *vis vite*, or concocting powers, by low diet, bleeding, and the increase of evacuation by the common emunctories: for which purpose, cathartics and diuretics are administered as antiphlogistics; but this process necessarily retards the operations of Nature,
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and converts a disease which is violent and short, into another that is moderate and tedious: experience, however, has taught us, that in all internal phlegmons, it is most safe to deviate from the road of Nature, and to attempt resolution; because, in many cases, it is impossible that the pus should be discharged.

But it frequently happens, that the best directed attempts to resolve a phlegmon, and prevent suppuration, are ineffectual; and in that case, as soon as the impostume is known to be formed, or the pus discharged inwardly, the method of treatment must be changed, and a passage procured for the pus according to the seat of it. When an inflammatory fever is accompanied with a short dry cough, pain and oppression on the lungs, or an acute pain in the side, there is good reason to suppose that Nature intends a phlegmon in the *thorax*, and the intention of cure is to resolve it; but when after pursuing the antiphlogistic method with that view for some days, the breathing becomes more easy, the pulse more full and soft, and concocted matter is plentifully expectorated by a more effectual cough, with relief of pain; it is evident, that in spite of art, Nature has produced a new emunctory, *i. e.* a discharge of pus by the lungs: in this case, therefore, the pulse should not be further lowered by the same bleedings

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bleedings and purgings which are supposed to have procured relief in the beginning or crude state of the fever, but the spitting should now be promoted by soft cooling pectorals, steams, and fomentations, and the suppuration promoted by an increase of nourishment, to restore the concocting powers, and so enable them to complete the crisis: the body must be suffered to become costive, although we dilute plentifully. If the same deposit of matter happens on the liver, the treatment during crudity will be exactly the same; and after coction the intention will be the same, except that as in the *peripneumony*, steams and pectorals are given to purge the lungs; gentle cathartics must be administered to purge the liver in the *hepatitis*; but the habit must not be farther lowered in either; therefore the lancet and all the powerful antiphlogistics, in this stage of the disease, should be foreborn.

In single inflammations, fevers are distinguished from each other by the name of the organ on which Nature seems disposed to form the phlegmon; but in compound inflammations, the fevers are distinguished, not so much by the seat of the phlegmon, as by its peculiarities. Suppose a young sanguine person in high health, and abounding with rich blood, should, during the cold frosty season and north-easterly winds, be infected

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infected with any contagious fever, an inflammatory fever would certainly be the consequence, and it would be easy to discover that the inflammation was not simple, perhaps that an eruption would follow; but the *proper name* would never be given to the disease, till the phlegmon with its characteristics appeared. Thus we can hardly distinguish a mild distinct small-pox from a large chicken-pox before the seventh day of the eruption. In like manner, when an ague seizes any person of a very inflammatory habit, the disease resembles an ardent fever; nor can we distinguish the ague till the inflammation is partly subsided. This may be called the crude state of the ague, and may require the high antiphlogistic treatment; but when the inflammation is subdued so as to suffer the ague to form, then begins the suppurating stage of the compound fever, and the same high antiphlogistic treatment is no longer necessary; but the diet may be mended to promote coction and crisis, as before mentioned in the single inflammation. The cravings of Nature are a good rule in this case; before the original fever intermitted, the sick could bear nothing but what was thin and cooling; but after the intermission they feel a desire for more solid nourishment, and Nature requires a more substantial support.

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support. This gradual amendment of diet is far preferable to the stimulating drugs which are sometimes employed for this purpose; nor ought they ever to be used but in cases of necessity, where Nature seems torpid. In cases such as I here endeavour to describe, I have always found, that the medicines commonly called cordials, promoted the evacuation of matter in a crude state; by which Nature was rather fatigued than relieved; the intermissions also have sometimes been destroyed; a new inflammation brought on, and a new recourse to the antiphlogistic method made necessary to bring back the ague to its type. Some persons have recourse to the bark as soon as the fever intermits; and indeed, at first it will frequently seem to answer their end, (for the bark is less heating and more restorative than any other of the cordial drugs) the fever stops, and all wears a good face; but, for the most part, they have reason to repent their precipitation; for the morbid matter being thus retained, brings on some other ailment of perhaps worse consequence than the original disease, and frequently more difficult to remove; whereas, if they had waited patiently, and supported the sick properly during the intervals, till Nature had been able to have concocted and evacuated the greater part of the offending matter,

matter, either the whole might have gone off radically, or the bark might have been administered with propriety and advantage.

Some people, again, err on the opposite side, by persisting in the same evacuations and high antiphlogistic method in the second, as had been found necessary in the first or crude state of the inflammation. Among many other instances, I remember that of a man, who having found that by bleeding, purging, and low living, he had brought an inflammatory fever to intermit in a few days, hastily concluded, that he might be able to evacuate the whole morbid matter by persisting in the same method: the consequence was, that Nature being disturbed in her operations, a continual fever returned, much worse conditioned than the former *.

The cold of winter, when attended with dry weather, has a surprising effect in destroying all sorts of acrimony in the juices;

* A physician in Paris finding, that the first fever of the small-pox agreed with bleeding, took it into his head that the whole variolous matter might be thus evacuated, and so destroyed a great many people. At last an apothecary, who could not help observing his bad success, told him, that he thought persisting in bleeding so freely through the whole course of the small-pox, had not succeeded according to expectation; "Par blieu," says the Doctor, "il faut accoutumer les petites viroles à la saigner."

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and

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and therefore, in spring, we sometimes meet with genuine simple inflammations, which may be cured by bleeding alone, without waiting for coction and crisis; and indeed some of them will require no other evacuation. I have seen a pleuretic fever carried off by one large bleeding in a few hours; but when the cold of winter super-adds an inflammatory diathesis to an acrimony already existing, then the case differs, as Sydenham well expresses it in his *Bastard Pleurisy* and *Peripneumony*, anno 1675, cap. v. art. 1. to the following purpose:

“ In the year 1675, the season continued
“ unusually warm like summer, till to-
“ wards the end of October, and the bilious
“ fever raged all that time; but about the
“ end of October a sudden coldness and
“ dampness of the air thickened the juices,
“ and brought on a cough and pain in the
“ breast, with some considerable degree of
“ fever, which deceived many people, and
“ made them take this disease for a true
“ essential pleurisy and peripneumony; but
“ in reality it was no more than the conti-
“ nuation of the same bilious fever, with
“ the addition of these symptoms, arising
“ from the sudden change of the weather.

“ Art. 2. For it began now, as it always
“ did, with pain in the head, back, and
“ limbs, which were the symptoms of every
“ fever

“ fever of this constitution, except only
“ that the febrile matter, when it was
“ copiously deposited on the lungs and
“ *pleura*, through the violence of the cough,
“ occasioned such symptoms as belong to
“ those parts. But, nevertheless, as far
“ as I could observe, the fever was the
“ very same as that which prevailed to the
“ day that cough first appeared; and this
“ likewise, the remedies to which it easily
“ yielded, plainly shewed. And though
“ the pungent pain of the side, the diffi-
“ culty of breathing, the colour of the
“ blood that was taken away, and the rest
“ of the symptoms usual in a pleurisy,
“ seemed to intimate that it was an essen-
“ tial pleurisy, yet this disease required
“ no other method of cure than that which
“ agreed with this constitution, and did
“ noways admit of that which was proper
“ in the true pleurisy. Add to this, that
“ when a pleurisy is the original disease,
“ it usually arises late in spring; whereas
“ the distemper we now treat of, began at
“ a very different time, and is only to be
“ accounted a symptom of the atra bilious
“ constitution, with an accidental cough.”

Accordingly, art. 10. he specifies his method of cure by the case of the eldest son of Sir Francis Windham. “ I bled him
“ but once, and applied a large blister to

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“ his back, injected clysters every day, gave
“ him cooling ptisannis and emulsions, and
“ sometimes milk and water, and small beer
“ to drink, and advised his sitting up a few
“ hours every day. By this method he
“ recovered in a few days, and a purge
“ completed the cure.”

OF THE

CATARRHOUS CONSTITUTION.

HAVING thus given a short history of the rise, progress, and termination of a single inflammation, and described the nature of compound inflammation in general, I now proceed to give a short account of those morbid lentors, which, superadded to an inflammatory diathesis, constitute the fevers which we meet with here every winter.

The first of these, or the winter fever of Sydenham, I have already mentioned, as being the joint produce of the beginning of the inflammatory constitution, and the remains of the *atra bilis*: and, indeed, if the winter continues very open, this fever becomes frequent and tedious; but about the end of January, after the inflammatory constitution has subsisted some time, it gives way to a morbid lentor of a different nature, which I call the *catarrhus lentor*, and which being added to the inflammatory diathesis, appears in

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four different forms; cough, rheumatism, erysipelas, and dysentery: I think these diseases are much of the same nature, because they have been regularly and constantly contemporary for the last fourteen years, and required the same diet and treatment. I have also seen them changed by indiscreet management from the one to the other, and they differ chiefly in the seat of the phlegmonoidis, or organ upon which the flexion is determined. *Hip. de Morbis*, sect. iv. mentions an erysipelas of the lungs with a copious thin expectoration, which brings on a peripneumony; and observes, that as soon as the matter expectorated became thick, the peripneumony ceased. *De vet. Medicin.* sect. xxxiii.

At this season of the year, the catarrhus lentor is felt all over Europe. *La fluxion de poitrine* is as well known in France as the catarrhus spring cough is in England; but the disease is far more dangerous here, for two reasons; first, the sudden transitions from cold to hot, and from hot to cold; and secondly, the dampness of our spring. The one disorders our nerves, and the other retards our perspiration; so that we are more apt to accumulate an acrimony called scurvy, at this season. Add to this, our constant eating animal food, and drinking nothing but fermented liquors. Animal food and fermented liquors have destroyed more Englishmen

fishmen than sword, pestilence, and famine; and it is impossible in this climate to cure or prevent a catarrh, in habits naturally liable to the disease, without increasing the clothes and impoverishing the diet.

In the diseases of this constitution, four things are to be considered: First, the degree of inflammation, to be moderated by a proper antiphlogistic method. Secondly, the degree of acrimony, which must be diluted and sheathed by a soft cooling diet of honey, sugar, herbs, seeds, renette whey, and ripe fruits, preserved or dry, by which the pain is moderated, and consequently the violence of the motion and heat. Thirdly, the state of the solids, whether they are rigid or relaxed; for we find that the rheumatism is tedious and difficult to remove in elderly people of a rigid habit, though they easily get the better of a catarrhus cough; but the catarrh is tedious and dangerous in young people of a delicate fibre, and tender lungs, from the age of eighteen to twenty-six. The fourth consideration is, the state of the fluids, which does not always depend upon the state of the solids alone; for I have seen an elderly, strong, working man, whose fibres were firm and elastic, at the same time that his blood was sharp, and even dissolved by acrid diet, and scorbutic lentor; and I have also seen young girls, of a delicate make, soft

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skin, and fair complexion, whose blood has been very fizy. These considerations readily direct us to the means necessary to conduct this kind of fever in different habits, till Nature has had time to perform coction; and then she will direct us to the expulsion in due time, and in that manner which is most convenient for each. I attend while I write this, February 23d, 1769, three different people, who were taken with erysipelatous fevers, and are now recovering by means of a gentle, concocted, easy spitting from the lungs. I have seen an acute rheumatism terminate partly by a fluxion on the lungs; but more frequently by a dysentery, or painful stools. This perhaps, was what led Sydenham to treat the rheumatism by bleeding and purging only, before he had discovered the effects of renette whey and low diet, as appears by his latter works: and indeed the most common error at present, in conducting this whole constitution, is a want of proper regard to diet: people become impatient before the end of forty days, and neglecting the proper diet, depend upon drugs and nostrums, by which coction is frequently prevented, and a radical cure rendered impracticable; whereas, if they would persist in a diet of seeds, bread, fruits, herbs, and renette whey, for a proper season, Nature would perform a perfect

perfect coction, by slow, but sure degrees; and the morbid lentor, being thoroughly digested, might easily, safely, and perfectly be evacuated. Surely, in these distempers, the true way of getting well is, according to the old adage, to be long sick. Some attention, however, must be paid to the seat of the phlegmon, and the method of cure must be varied accordingly.

From this state of the case, it is evident, that in all catarrhs, the indications of cure are four, *viz.* 1^{mo}, To take off the inflammation. 2^{do}, To dilute and sheath the morbid lentor. 3^{tio}, To evacuate it from time to time, according as coction takes place, by that outlet which relieves most, endeavouring at the same time to defend the organ from destruction. And, 4^{to}, To restore the solid parts to their natural tone.

The *first* intention is answered by what has been said of the antiphlogistic method. The *second*, by a strict antiacid regimen, adding only such remedies as are known to be effectual in curing that acrimony which is peculiar to the individual; such as bile, gout, scurvy, dartre, scrophula, or lues.

The *third* intention of evacuating the morbid lentor with propriety, requires great vigilance and skill, for many reasons: 1^{mo}, The coction is difficult, slow, and partial: 2^{do}, The lentor is very irritating and acid:
and

and, 3tio, The whole never is evacuated by the common emunctories; some part always is discharged by the phlegmon, or seat to which Nature has directed the fluxion. Now, as the phlegmon frequently falls upon a noble part, there may arise some danger of hurt to that part, as we dare not use repellants for fear of increasing the fever: nay, I have observed, that the repellants seemed rather to promote than retard mischief in the parts affected. No wonder then, if many errors are committed at this period of the distemper: the great length of time necessary to conduct the whole properly, the pain of the affected parts, the impatience under regimen, and the great difficulty of relieving the pressing symptoms, without running the risk of retarding the salutary efforts of Nature; all concur to render the cure difficult. When I consider the different kinds of acrimony inherent in different constitutions; the number of diseases, small-pox, measles, hooping coughs, and many others, which are common at this season of the year, and complicated with the catarrhus epidemic constitution, the improper regimen, and great irregularities of most people during the winter, and the injudicious administration of powerful drugs, I wonder how so many should escape that incurable phthisis so fatal to the youth of both sexes in this kingdom.

kingdom. One thing, however, must be observed, that many who have escaped with their lives, have lost their constitutions from a rash and unskilful treatment of what had the appearance of a slight cold.

Some years ago, a young healthy man, of a sanguine temperament, was seized with a defluxion from the head or *coryza*; the discharge from the nose was so acrid, as to excoriate the upper lip and both nostrils; he had a slight inflammation in his throat, with some hoarseness on the second day, which was followed by a little tickling and cough on the third day. This disorder was called a cold, and supposed to be the consequence of a repelled perspiration: to remedy which he was put on a course of diaphoretics, without making any alteration in his diet; he took a considerable quantity of the volatile oily mixture all day, and a draught with *elix. paregoric.* at night. I saw him on the third day of this course, and the sixth of the complaint; his throat was of a dark purple colour, like that of an erysipelas, not much swelled, but burning hot and very painful. The pain all down his throat was so great, that he was obliged to suppress the cough, although the tickling was very troublesome. All along the short ribs on both sides, he had a smart rheumatic pain, which affected his breathing, and there were many erysipelatous pimples all
over

over the shoulders and back of the neck; he had a frequent inclination to go to stool, with much griping pain and tenesmus; his face and head seemed swelled, and his countenance had evident signs of difficult breathing and great distress. His pulse was soft, rather small, and not exceeding an hundred strokes in a minute, but it was irregular; his urine was in small quantity, high-coloured, and crude; but there had been a yellow sediment in some of it the day before I saw him; his skin was hot; his mouth dry, and thirst unquenchable; in short, he had at once all the symptoms of this constitution, an erysipelas of the skin, lungs, and bowels, and a rheumatism. My opinion of this case was, that there had been a deficiency of the secretions and excretions, which had occasioned a catarrhus lentor, and some degree of inflammation on the *membrana Schneideri*; that the volatile *alkali* and the *elixir paregoricum* had increased the acrimony, and rendered the inflammation universal; that the difficulty of breathing and infarction of the lungs were jointly the cause of the soft, small, irregular pulse; and that the griping and purging stools were part of the same acrid lentor which appeared in the throat, lips, nose, and shoulders. Here then was a true complex inflammation, to be treated according to the above intentions. For this purpose, I directed a plentiful bleeding, an emollient clyster

clyster with honey, and lintseed tea highly acidulated, to be taken warm perpetually; his drink was sweetened with honey, and his lungs were frequently stooped with the warm steams of it. Some hours after, the griping increased, which was imputed to the honey and acid: I was therefore obliged to part with the honey, and substitute sugar; but I insisted upon the Seville oranges, and ordered a purge of manna and soluble tartar in an almond emulsion. The morning of the seventh day, I examined the blood, and found it covered with a thick yellow buff, and the serum very yellow, but in a small quantity; the patient had several stools in the night without gripes, and his bowels were easy, his pulse became more full and quick, and his breathing was much relieved; but the cough continued exceedingly troublesome and the rheumatic pains increased: all this confirmed me in the opinion, that evacuations were proper; and that the aggravation of the cough and rheumatism was merely the consequence of a more free circulation: I did not see his urine; but the pain of the throat was abated, and he had drank largely of acidulated liquors of various kinds. In the afternoon I found the griping and purging all gone, and the quantity of urine much increased, and less highly coloured, but crude. The great complaint
now

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now was, the frequent hard cough, and the excruciating pain in both sides ; to remove this, I ordered a second plentiful bleeding ; and the stoop and drinks to be continued as before, adding a *linctus* of equal parts of oil, honey, and currant jelly. At night the pulse was soft, equal and quick ; the breathing good, the cough frequent, and seemed to keep up the pain in the sides. I then ordered a stoop for the sides, and added a small quantity of *diacodium* to the *linctus* ; and some nitre with common oxymel to the drinks ; which were lintseed tea, pectoral decoction, and cheese whey. The diet was sago, panada, gruel, bread with fruit, or fruit jellies. The second blood was more firm and thicker in the buff than the first, but had more serum, and was not so yellow.

Upon the eighth day in the morning, I found he had slept a little, and did not complain so much of the pain in his throat and breast ; but the pain in both sides was excessive, the parts seemed swelled, and were sore to the touch ; cupping glasses were applied to each side, and he became easier in the evening ; the pulse was only one hundred, soft and equal ; the pimples on the neck and shoulders were dead ; the breathing was good ; the skin not hot, but very dry : as the patient had no stools, a clyster was given in the evening.

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This course was continued to the fourteenth day, when the rheumatic pains were quite gone off, but the cough remained very hard and dry; the pulse was still about one hundred; urine various, but in reasonable quantities, and the stools were pretty regular. He began an emulsion of almonds with camphire, *spiritus mindereri*, and calx of antimony; and increased the quantity of oxymel in all his drinks.

Upon the twenty-second day, there came on a spitting mixed with a little blood, which increased to the twenty-fourth, when he was ordered to desist from the emulsion, and take no other drug than the oxymel, because the spitting was now abundantly promoted. The body was kept regular by clysters, and an issue was cut in each arm. He was put upon the diet of milk, fruit, and seeds. Thus he continued coughing and spitting to the forty-second day, when he began to recover strength; the cough was more moderate and less frequent; but did not quite cease before the sixty-fifth day; he then began to take light animal food once a day, some exercise, and country air. Now, it is evident, that some part of this morbid lentor went off by the bowels in the very beginning; and that more went off afterwards through the skin: but the principal critical discharge was by the lungs; which continued full forty days before the blood

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was perfectly depurated: we must not therefore wonder at the obstinacy of the fluxes, rheumatisms, and coughs which happen in the spring.

I have constantly observed, that the young people about the age of eighteen, nineteen, or twenty, who are seized with a catarrh in the months of January or February, and recover in April, May, or June; although they are in all appearance well during summer, harvest, and winter, yet never escape a return of the catarrh in the following spring, till they pass the age of twenty-five, unless they are well fortified during the harvest and winter, with restoratives and antiseptics, or by good fortune are taken with an ague; which, if well conducted, makes a radical cure of the catarrh. But if the ague is stopped before the proper change in the constitution is completed, the disease is rendered more inveterate, and commonly ends in a phthisis; one instance of which I shall relate.

In the year 1755, Miss P. A. at the age of seventeen, after dancing many hours, was seized with a pain in the region of the liver, which was succeeded by a jaundice; this complaint was wholly removed in two months; but ever after she was liable to a return of it upon any violent efforts. In the beginning of February 1757, she was
taken

taken ill of a cold, and a slight cough, which were neglected till the eleventh day, when she felt the first real rigour of a fever. The symptoms were, *first*, a frequent dry cough. *2dly*, A constant pain in the fore-part of the head. *3dly*, A return of the old pain in the side. *4thly*, A hot skin. *5thly*, A quick pulse, but not very full. *6thly*, Urine pale and crude. *7thly*, Body costive, with great restlessness. And, *8thly*, The tongue white, but not much loaded. This was called the nervous fever of Huxham: accordingly, his saline draughts were given, and the patient was ordered to keep her bed, and to drink balm-tea, and sack-whey. I was called in at night on the fourteenth of February, being the fourth day of the stated fever, and found her in a universal sweat, by which she imagined her headach a little relieved. I ordered two drachms of manna to be added to each draught, and a clyster to be thrown up as soon as the sweating abated.

Next morning (the fifth day) I found that the sweat had given no real relief, all the symptoms being rather increased; the tongue was now become foul, although the clyster and manna had procured three plentiful discharges; and now the pulse was become firm, and the countenance flushed, with a troublesome ringing in the ears; a frequent, hard, dry cough, and

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considerable

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considerable increase of the pain in the region of the liver. She was blooded, and lost ten ounces; upon which she became faint, but soon recovered; nor did the pulse sink. Then ten grains of nitre were added to the saline draught, and given every four hours.

Sixth day: She had a restless night, sweated a little, but found no relief, and the cough was very troublesome: to allay which, an emulsion was ordered of almonds, poppy-seeds, and syrup of lemons, with the draughts.

Seventh day: This morning she was much as before, only did not complain of her head, except when she coughed; the urine deposited a branny sediment in a small quantity, and white as flour; and she had had a loose stool in the night, but had no inclination to get out of bed; the same medicines were continued.

Eighth day: The pulse was become more soft, and there was some sediment in one glass of the urine. The anxiety was not quite so great; she had been taken up to have the bed made, but could not bear it well. The cough was very troublesome, and increased the pain in the head and side; the same medicines were continued: at night the catamenia came on in a small quantity, as was usual with her, but rather still less.

Ninth

Ninth day: The catamenia continued, but the quantity was very small: there was no sediment in the urine; the pulse was quick and small, but not hard: twenty drops *tinct. castor. & salvolat.* were added to each draught, and the emulsion continued.

Tenth day: There was some more appearance of the catamenia, and the urine was much deeper coloured. The other symptoms were moderate: she had sweated a little, as usual, every night, but had no stool for fifty hours: upon this the clyster was repeated; the draught and emulsion continued.

Eleventh day: The clyster moved her thrice, and relieved her much: the same medicines were continued, but the diet was a little mended.

Twelfth day: There was a sediment in all the water, and she had had a very copious poultaceous stool; the catamenia wholly disappeared, and she was much better in all respects; a little quickness, however, still remained in the pulse: the saline draughts were given night and morning only; a basin of chamomile-tea at noon, and a glass of claret after dinner.

Thirteenth day: In the night preceding this day, she had two large darkish stools, and continued better: we proceeded therefore in the same course, except that we

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increased the quantity of the chamomile-tea, allowed some light flesh meat at dinner, and another glass of wine.

Fourteenth day: About ten this morning, she seemed much better; but at four in the afternoon she was seized with a cramp in the stomach, which felt contracted into a hard lump, and her face became of a purple colour, with a small pulse. This was supposed to be hysteric; and accordingly, she took a volatile draught with *elix. paregor.* a plaister of *theriac.* and *ol. mac.* was applied to the region of the stomach, and she was ordered to drink chicken water, and wine-whey; but she had no stool for twenty-four hours.

Fifteenth day: She had a very indifferent night; her skin indeed had been, and continued to be moist, but without relief; for the heat was great, the pulse full, very quick, but not hard; she had made much water, and there was a copious sediment in every glass: her mouth was dry, and her thirst perpetual. The hardness now extended down the right side along the region of the liver; there was some oppression on her spirits, and she seemed fatigued and dejected. The saline draughts were repeated with manna; a clyster was injected, and a peregoric was added to the night draught only.

Sixteenth

Sixteenth day: In the evening of this day she became still worse, and had a shivering fit, after which she went into a universal profuse sweat. The clyster operated once; yet I could perceive no alteration for the better, for the pain and hardness of the stomach remained, and her eyes became rather yellow; the stool was very yellow, and she brought up some bile; the thirst was still unquenchable; the tongue was foul and loaded (*chargée*); the pulse was full, quick, and soft; the skin was hot and moist; yet the strength of the patient kept up surprisingly. The clyster was repeated; she took an emulsion with two ounces of manna, and a saline draught with syrup of violets every six hours. In the evening she had three stools, and was much relieved by ten at night. She had been shifted after the sweating went off, and now seemed inclined to sleep; her urine was hypostatic.

Seventeenth day: In the night preceding this day, she had three more stools; her eyes were more clear, her head free from pain, her fever diminished, her sweat more moderate, her heat and thirst less, her tongue pretty clean, urine deep coloured and loaded, and her stools not so yellow; but the cough returned, was very troublesome, and hurt her side; the phlegm was tough, and expecto-

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rated with difficulty ; an eruption appeared upon the *os sacrum* and *ossa innominata*, which rendered it painful to lie on her back ; she could not lie on the right or affected side without difficulty, and not at all on the left.

Eighteenth day : I found this morning that she had been very sick at her stomach in the night, and by the help of some chamomile-tea, had thrown up a great quantity of some substance strongly tinged with bile ; after which the clyster was repeated, which operated twice, and the draughts were continued : she became very easy and the pulse moderate ; a very considerable miliary eruption also appeared all over her neck and stomach. At night the fever came on again, though it was not near so violent as formerly, the eruption increased, and the cough was moderate : a blister was applied to the back, and the draughts were continued.

Nineteenth day : She again became sick at her stomach, and vomited a great deal of yellow stuff ; after which she had four stools of the same kind : the draughts were continued, and she drank plentifully of thin chicken water : the blister was removed at noon, and at eight in the evening, she seemed much better : her urine had been very thick all day, and deposited a copious sediment.

Twentieth

Twentieth day : This morning I found that she had rested pretty well ; that her fever was inconsiderable, and pulse soft and large : she had, however, been sick, vomited and purged as the day before, but at night was free both from sickness and pain.

Twenty-first day : She continued to mend ; but had again vomited and purged as before. Some vinous *tinct. rhub.* was therefore added to the draughts. In the evening she bore being taken out of bed, and said she felt some appetite ; accordingly, she eat some of the boiled chicken out of the broth, which agreed with her.

Twenty-second day : She was still better this morning ; some drops of Huxham's tincture of bark were added to the draughts of yesterday. The vomiting returned early in the morning, though she had had an exceeding good night. At noon she was quite easy ; the urine continued of a yellow colour, but the sediment was not so copious : she was moved into a larger room. After this, she continued to have one or two stools every day, and mended gradually to the twenty-sixth, when some degree of fever came on in the evening, with a difficulty of swallowing ; but went off gradually by some large stools on the twenty-seventh and twenty-eighth ; during all which time the same draughts and diet were continued.

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Twenty-ninth day : She had two plentiful stools this day, and seemed better.

Thirtieth day : This day she had no sickness, cough, or pain, except in swallowing : upon inspection, we saw a white aphthæ, which had something the appearance of lard : the draughts and diet were continued without alteration till the thirty-third day, when the aphthæ became very troublesome ; upon which she was ordered the decoction of the bark with a gargle of turnip-juice, *mel. rosar.* and *spir. su'ph.* By the help of these medicines, the aphthæ were quite removed in four days ; after which she recovered every day ; and upon the fourth of April the catamenia returned as usual ; and by the beginning of May, she was in full health and spirits.

Upon a careful review of this fever, I found reason to conclude, that many things which ought to have been attended to had been neglected ; particularly, the *terrentia* or slight cough and cold, which had preceded the stated fever. When a young person, in the spring-season, is seized with the common symptoms of a cold ; such as a *coryza*, pain in the throat, tickling cough, and the like ; these are to be considered as the harbingers of a catarrhous fever ; and therefore the diet ought to be reduced immediately. The patients must not be exposed to the night-air : they should go
early

early to bed at night, and remain a little longer than usual in bed in the morning: they should take no violent exercise till these symptoms subside. But if the symptoms do not abate in four days, they ought to lose some blood on the morning of the fifth, and take an emetic in the evening. If the symptoms do not after this abate, they should be purged the morning of the sixth day, and the body opened every day, till all the heat subsides; or till a soft easy spitting comes on; during which time they must not remain all day in bed, nor encourage morning sweats, although the kindly natural perspiration, during the ordinary hours of sleep, gives great relief. But in the case that has been recited, the patient had been kept in a constant profuse perspiration from the first day of the fever to the fourth, by the heat of the bed, wine-whey, saline draughts, and the like, without any other preceding evacuation. Upon the fourth day, when I first saw her, the sweat was immoderate, and I was afraid to disturb it; manna indeed was added to the draughts, and the body was opened by a clyster; but the bleeding was put off till the next morning, instead of her being shifted and blooded immediately; after which the *emetico catharticum* ought to have been given; and a soft gentle purge should have been administered the following morning. From the fifth day

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day we went on pretty well to the seventh, when there was a considerable alleviation of the symptoms, with some signs of coction, both by a slight expectoration, and small deposit in the urine. On the eighth day, the signs of coction were stronger by sediment in the water, and some shew of the catamenia, with a great abatement of all the symptoms; but there had been no stool either on this, or the preceding day. Upon the ninth day, the constipation still continued, and the urine became deeper coloured, and more crude. In this situation, instead of opening the body as we ought to have done, to carry off the morbid matter by that evacuation, which had given relief, we added twenty drops of *tinct. cast.* and as many *sal. vol.* in order to promote the menses. Upon the tenth day, however, we discovered our error, and gave a purging clyster, which operated thrice that day, and produced favourable appearances on the eleventh. On the twelfth every thing went on well; but not contented with this, we gave six ounces of chamomile-tea as a febrifuge, and increased it to nine ounces on the thirteenth and fourteenth days, ordering at the same time, some solid animal food, and a glass of wine at dinner. The consequence was, a cramp in the stomach, and many symptoms of a putrid

putrid fever; for the morbid matter after coction, which ought to have been evacuated, was retained, and exasperated by the bitters and animal food. Upon the sixteenth day, indeed, some part of it was evacuated by a purge; but some part of it was again mixed with the mass of blood, and determined by Nature, in form of an erysipelas, on the *os sacrum* and *ossa innominata*; some part was deposited in the liver, where it occasioned much pain and swelling; some reverted back to the lungs, and increased the cough. Upon the eighteenth day there came on a natural vomiting, which was properly promoted, and the body afterwards seasonably opened by a clyster; after which there came out a considerable miliary eruption; and all together gave great relief: but here we fell into another error, and expecting great advantage from the miliary eruption, we promoted that preferable to the other evacuations, by a blister; Nature, however, acted right, and upon the morning of the nineteenth, the vomiting and purging returned, which continued in part during the twentieth, twenty-first, twenty-second, twenty-third, twenty-fourth, twenty-fifth, twenty-sixth, twenty-seventh, and twenty-eighth days, when the pain in the throat came on, the harbinger of the aphthæ, which carried off the whole fever by the thirty-third day; when she began
to

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to take the bark, and recovered every day afterwards.

I am now convinced that this patient never would have relapsed, if she had been properly treated from the eighth to the fourteenth day; and that the whole might have been prevented by proper treatment in the beginning: and although to appearance, her recovery was afterwards perfect, yet I suspect that some weakness remained in the liver and lungs which perhaps never could be rectified afterwards. From this time I resolved to treat the catarrhus fevers after a different manner; and accordingly, the next year about the same season, this poor young lady was again seized with a similar fever, for which she was immediately bled and vomited the same evening; her body was opened the following morning, and kept cool and open during the course of the fever; she was not confined to bed in the day, nor suffered to taste animal food. This fever soon intermitted, and in nine days came to a regular ague; on the fifteenth day, the bark was begun, which soon stopped the ague; but the cough remained for several weeks; and I repented that the bark had been given. However, by diet, country air and exercise, the patient recovered in June.

The following spring, the same fever returned with more violence than ever, and the

the same antiphlogistic method brought it again to an ague. But here arose a question, Whether this ague should be stopped, or suffered to take its course? This was much agitated, and it was at last agreed to suffer it to take its course. But people became impatient; every body proposed cures for the ague, and we were obliged to give the decoction of the bark. This ague was more obstinate than the former, which made it necessary to add some of the powder to the decoction, by which the ague was stopt; but the cough remained very troublesome. The summer season, with milk diet, and country air, reduced the violence of the cough; but there still remained so much of it in the morning, that the lungs being irritated, a spitting of blood came on, even after the patient had recovered her flesh and colour in the summer. This was removed by proper bleeding, fruit, and butter-milk; but still the short cough remained, which was confirmed by the usual return of the spring catarrhus fever, and ended in a real *phthisis pulmonalis*. All remedies were tried for this disease in vain, and it now became impossible to save one of the most valuable lives upon earth, which was surrendered to the hand that gave it, in the month of October following.

Let

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Let this instance of the bad effects of the bark in a spring fever, attended with a defluxion on the lungs be remembered. I have seen many such ; and have, therefore, for several years, abandoned the practice, and adopted another with better success. A fine boy, about seven years old, the son of Mr. F. in King's Arms Yard, was taken with the hooping-cough last spring, 1769; after proper evacuation and diet, there came on an intermittent fever, which soon formed into a regular double tertian; after frequent little pukes, keeping the body open, and a very strict course of vegetable diet, one of the agues went off, and there remained a very smart single tertian, together with the hooping cough. I gave it as my opinion, that this disease ought to be left to Nature; but as it might probably continue for some months, I advised to take the opinion of Sir William Duncans: as he perfectly concurred with me, the same diet was continued, and the child was suffered to take his fit every other day for three months. In July both diseases went off, and left no bad effects behind. That the lungs had suffered nothing was manifest soon after; for in the month of September following, the same child was seized with a bad sort of the measles, and a violent cough and suffocation; after the first plentiful bleeding, there came on a free and copious expectoration ;

ration; and after a second bleeding, both cough and measles went off together in the most kindly manner: but, if the lungs had been injured by the whooping-cough, this probably would not have happened; for the measles are more apt than any other disease, to produce suppurations, if there happens to be obstructions or tubercles on the lungs.

In all such cases, the catarrh is to be considered, particularly in young people, as the most dangerous part of the disease; and the spring ague as of little consequence, even if it should continue for some months, a principle which was well known long before the virtues of the bark were discovered. I am always well pleased to meet with an ague in a young person, who is liable to spring catarrhs; because I have reason to expect, by the help of the ague, radically to cure the catarrh, if my directions are patiently followed. But when there is no ague to divert the matter from the lungs, and when there is a great fluxion of acrid matter to be carried off by the cough and expectoration, and the subject is a young person, whose lungs are very tender, but who, at the same time, easily makes a great deal of blood; there is eminent danger of a phthisis; particularly in our climate.

If the spring catarrh is not properly conducted, it will bring on such obstructions, tubercles,

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tubercles, suppuration, and hectic fevers, as commonly prove fatal in May; but if it is well conducted by proper evacuations, and a rigid perseverance in a very light anti-acrid diet, then the summer season puts an end to it, as if it never had existed. It must, however, be remembered, that it will return again the following spring; and therefore care must be taken during the summer, autumn, and winter months, to strengthen the habit, and fortify the lungs, by journies, bark, chalybeates, and cold bathing, still observing the same anti-acrid and antiseptic diet. These remedies are very powerful, and, when the disease is conquered, may prevent its return; but if administered too early, or before the catarrh is entirely gone, will infallibly destroy the patient.

There is one method of preventing the return of this disease still more effectual, hot climates; and of them the West India islands have succeeded best with my patients: thither they ought to go, and there they ought to remain till they pass the twenty-fifth year of their age. I have sent patients to all parts of Europe; and although some have escaped, by far the greater number have perished; but all who went to the West Indies have recovered, except one, Mr. Lewis Gordon, who was in a confirmed phthisis before he set out; but
3 the

the brother of this gentleman, Mr. William Gordon, recovered in Jamaica, after he had been pronounced past recovery here. Mr. Malcom, another of my patients, recovered in the French Islands, whose case was thought to be desperate from the violence of the hectic, and great loss of flesh and strength, which succeeded the fourth return of the spring catarrh: and Miss Grant, the daughter of a friend, recovered in Antigua, after I myself, and all who saw her, thought she was in a confirmed consumption. She was first seized with a catarrh three years before, which had returned regularly every spring, and, in spite of Bristol waters, and all care that could be taken, at last brought her into this situation.

In conducting a confirmed catarrh through the months of March, April, May, and perhaps June, great attention must be paid to the winds and weather: during that season we have some dry, cold north-east winds, that may render bleeding necessary; and some sudden transitions from that to damp, warm, close weather, that may oblige us to give little pukes, when otherwise they might not be necessary. Neither should the patient be suffered to get on horseback too soon, nor indeed before the fever has subsided; for while there remains much fever, there is no occasion for additional

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motion;

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motion; but after the fever has subsided, and a cough remains, then a horse becomes the best doctor; to which asses milk may be added. Before the spitting is plentiful, or in proportion to the cough and other symptoms, warm air is proper to promote expectoration; but after coction and plentiful spitting, the open air of the country becomes the best remedy to strengthen the compages of the lungs. In like manner, while the fever runs high, plain milk of any kind is too rich: rennet whey, if not over salt, and cucumbers, are more proper*. Neither are mineral acids so proper as fruit and vegetable acids, till the inflammatory part of the complaint is pretty well over, which always happens in July, old stile, when the putrid diathesis sets in, and renders the use of powerful antiseptics more safe, and even necessary: but during the season of the *synochus non putris*, that is between spring and summer, the catarrh partakes of the same nature, and readily mixes with it. This makes some people imagine themselves in a confirmed hectic, when they are only ill of a *febris humorrhalis*, complicated with the remaining cough of a spring catarrh; and others

* Dr. Muffel of Berlin, cured a young woman of a confirmed catarrh, by obliging her to live on bread and cucumbers, *pour toute nourriture*, and drink cold water only. *Vid. his Observat. Med.*

pretend

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pretend that they have cured a *phthisis pulmonalis*, or confirmed hectic, when no such disease existed. There is great difference between the evening heats and salutary night sweats of the *febris humorrhalis*, and the colliquative, profuse morning sweats of the confirmed hectic, arising from the absorption of pus, formed and collected in an internal, inaccessible part. So much for the catarrhus epidemic constitution, and the effects of an ague upon it.

OF THE
SYNOCHUS NON PUTRIS.

I NOW come to consider that constitution which takes place yearly and regularly towards the end of the inflammatory season, and is in some years so general, as to deserve the denomination of epidemic. Since Huxham wrote his essay on the slow nervous fever, many persons have deemed it a new fever; but it could only be because they did not advert to what the ancients have said upon the subject. Hippocrates was not very solicitous about names; he put things down as they occurred in practice, and carried the same observation through a variety of fevers, both with respect to diagnostics and prognostics; but it will be found, by carefully examining his successors, that the *epialos*, the *febris pituitosa*, the *synochus non putris*, and the *febris humorrhalis*, are the same fever with Huxham's, which sets in here some time in March, and lasts a considerable time, commonly till after the summer

summer solstice. The different kinds of this fever were distinguished by the ancients, first, according to the duration of it, so the *synochus simplex* lasted only four, or at most seven days; then according to the particular symptoms that attended it in different constitutions, such as *typhodes*, *assodes*, *lyngodes*, *phricodes*, *pituitosa*, and *lumpyrea*; but still their practice was the same, they followed Nature, and assisted her.

It was the observation of a very eminent and ancient physician, that a new treatment always turned an old fever into a new one: an observation which came fresh into my mind upon reading Dr. Glas's twelve commentaries on fevers, for which the medical world is much indebted to him. Nor do I find any difference in these fevers, except such as arises from the different customs, climates, and manners of treatment.

But besides the prevailing constitution incident to the season, the variation made in that season by the winds and weather ought to be considered; and for this we have the authority of Hippocrates himself. Aph. sect. iii. art. 5. translated by Celsus, lib. ii. chap. 1. "Per imbres longæ febres,
" alvi dejectiones, resolutio nervorum, &c.
" Auster aures hebetat, sensus tardat, capitis
" dolores movet, alvum solvit, totum corpus efficit hebes, humidum, languidum."
And again, sect. iii. art. 11. "Si hyems
M 3 " sicca

“ sicca septemtrionalis ventos habuit, ver-
 “ autem austros et pluvias exhibet, fere sub-
 “ eunt lippitudines, tormina, febres, maxi-
 “ meque in mollioribus corporibus.” Sect.
 iii. 19. “ Non quo non omni tempore, in
 “ omni tempestatum genere, omnis ha-
 “ bitus homines per omnia genera mor-
 “ borum et ægrotent et moriantur, sed
 “ quod frequentius tamen quædam eveni-
 “ ant.”

This seems to be confirmed by the present epidemic constitution in March 1769. I did not hear of any low nervous fever before the warm weather in the beginning of this month, and then I saw several. Upon carefully comparing the symptoms of this fever with the *hemitritei* and *tritio-phie* of the ancients, and with the *febris hungarica*, *gastrica*, *cholericæ*, *mesentericæ*, *febricula*, and *lenta* of the moderns, they all seem to arise from the same cause; and the first symptoms in all of them are similar to what the ancients have given as the signs of turgid matter in the first passages.

Turgid matter in the stomach, or in the upper part of the alimentary canal, according to Hippocrates, was found accompanied with the following symptoms, *viz.* universal weariness, sudden weakness, shiverings, foul tongue, bitter taste, loathing, sickness, uneasiness about the *præcordia*, and tumors of the stomach, which easily yielded

yielded to pressure, straitness of breathing, or oppression on the breast, pain of the stomach and of the side below the diaphragm, provided that there was no violent inflammation; then coldness of the extremities, heaviness, and pain all over the head, giddiness, mists before the eyes, lowness of spirits, faintness, inquietude, anxiety, restlessness; providing still there was no violent inflammation. Nor do these symptoms very much vary, whether the turgid matter be yellow, green, or black bile, or any other kind of pituite, whether acid or putrid, provided that the noxious humour lodged within the stomach be acrid and offensive. In all these cases vomiting was ordered, as the shortest way of evacuating the morbid matter: but when the turgid matter is situated below the stomach in the lower belly, then, says he, there is a heaviness of the knees, pain about the loins, distention of the belly, rumblings, gripes; liquid, clear, foetid, and acrid stools: and in all these cases, purges, were ordered, as the only remedy which could carry off the morbid matter, and consequently relieve the symptoms, so long as no considerable inflammation subsisted.

Is not this an exact abridgment of Huxham's description of the slow nervous fever during the first five or six days; except the pulse and appearances in the urine? As to the pulse, Hippocrates does

not seem to have understood it so well; but he describes the urine of the pituitous fever so as exactly to correspond with Huxham's observations, and by it prognosticates the duration, coction, and crisis. Nearly the same symptoms appear in the beginning of bilious fevers, when the matter is turgid in the first passages, though Hippocrates observed some difference. If that bitter humour, says he, which we call yellow bile, is collected in the stomach or bowels, what heat, anxiety, and faintness does it produce! If a sharp, acrid, greenish humour infests the stomach, what anguish of mind, dejection of spirits, and acute flying pains doth it occasion? He also marks the yellow urine of the bilious lentor, and the pale crude urine, and *urina jumentosa* of the pituite: He describes the bile as an hot and drying lentor: A *causus*, says he, or ardent fever, ariseth when the blood vessels being dried, have attracted acrid and bilious humours; the fever is then violent, the stools are bilious, the thirst intense, and the mouth is bitter. A bilious morbid lentor then occasions great heat, anxiety, and faintness, with intense thirst, bitter taste in the mouth, bilious stools, and yellow urine: whereas the pituitous lentor occasions anguish of mind, dejection of spirits, acute flying pains, clammy mouth, cold extremities, little thirst, and pale, or crude
turbid

turbid urine. Thus far Hippocrates. To which may be added, that the pituitous lentor succeeds the inflammatory constitution, and precedes the putrid one: it seems to be the gradation betwixt these two extremes. The cold of winter, during the inflammatory constitution, has destroyed the bilious or yellow-coloured acrimony in the juices, and produced the pituitous or clear-coloured phlegm, which is not acrid in the beginning, but will become so if long retained, and produce most of the symptoms of the rankest bile. This morbid lentor then is most common in spring; whereas the bilious constitution is most common in autumn, when the heat of summer has exalted the oils and salts of the body, and rendered all the juices acrid and dissolved; so that the bilious matter is easily moved: therefore, says Hippocrates, *Lib. de Affection.* 519. If in a bilious fever the patient doth not purge of his own accord, let him be purged downwards with some gentle medicines. Again, if the stools are bilious, he orders frequent clysters of the infusion of thapsia. And Celsus, lib. i. cap. 3. and lib. ii. cap. 18. expressly treating of vomiting and purging in bilious cases, affirms, that there is no occasion for rough medicines to answer these intentions. This is true of bile, but not quite so of pituite, which being of a more tenacious

tenacious consistency, requires more active medicines.

Galen, method. medend. observes, "That
 " some people begin to be feverish, with an
 " uneasiness of the orifice of the stomach,
 " from indigestion, or the like occasion;
 " their *præcordia* are puffed up, and the
 " body seems swoln, their countenance is
 " sometimes pale, and sometimes inclines to
 " a livid colour, their pulse is always less
 " than might be expected from the heat
 " of their flesh; it is obscure also, and
 " unequal. With these symptoms the sick
 " are inclined to faint on slight occasions;
 " for Nature being oppressed, and unable
 " to expel the morbid excrementitious hu-
 " mour, on account of its thickness, quan-
 " tity, or visciditv; or of its passage being
 " stopped up; or by reason of her own
 " weakness, the matter being long pent
 " in, must necessarily be corrupted; for no
 " other humour in such a state, can continue
 " the same it was in the beginning; much
 " less this, which is so vitiated, that it can-
 " not be again restored to an healthy
 " state." The same idea is fully expressed
 by Baglivi, in his chapter on the mesente-
 ric fever: "The generality of physicians,"
 says he, "as well as ignorant people,
 "are too rash in pronouncing fevers
 "malignant, because they are attended
 "with a variety of bad symptoms, which
 "become

“ become worse as the fever advances.
“ There are doubtless some fevers produced
“ by a venomous ferment ; but such hap-
“ pen very seldom. The malignant fevers
“ which appear with us, proceed from
“ inflammation, or from vitiated, crude
“ humours collected in the first or second
“ passages. In those patients which I have
“ had the care of from the beginning, I
“ have very seldom met with a malignant
“ fever ; but when the cure has been begun
“ by others, and not pursued according to
“ the indications of Nature, or the divine
“ precepts of Hippocrates, a thousand dif-
“ ferent and dangerous symptoms have oc-
“ curred, not the genuine offspring of the
“ disease. It happens likewise, as I have
“ often seen, that some fevers become, al-
“ most immediately, very dangerous ; these
“ the generality of people call malignant,
“ and on account of the supposed poison,
“ presently have recourse to aromatics,
“ alexipharmics, and hot volatile medi-
“ cines of various kinds ; by which means
“ they increase that very danger which
“ they intend to prevent. At Rome we
“ frequently meet with vitiated crude
“ humours collected in the first passages,
“ (but not often in the blood) which pro-
“ duce these fevers that I call mesen-
“ teric.”

“ Among

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“ Among the signs which denote a col-
 “ lection of such humours in the *primæ*
 “ *viæ*, are the following, learned by
 “ patient observation; a bitterness and very
 “ ill taste in the mouth, a foul tongue,
 “ sickness at the stomach, especially in the
 “ morning, a foetid breath, foul and furred
 “ teeth, foetid stools, and foetid flatulencies,
 “ which break off downwards; the head
 “ sometimes is heavy, and scarcely to be
 “ held up; at other times it is continually
 “ in pain, with a heaviness and pulsation
 “ about the temples; which symptoms are
 “ most troublesome after dinner and supper;
 “ a noise in the ears; the urine is natural,
 “ or very nearly so. The fever likewise
 “ increases after dinner and supper, and
 “ observes the type of a continual double
 “ tertian. The sick have a heat in the
 “ palms of the hands or soles of the feet,
 “ or about the hypochondria; they lose
 “ their appetite, look pale, and are costive.
 “ It is most remarkable, that, in those
 “ disorders, the head suffers more than
 “ the mesentery, which is the seat of the
 “ disease. In hypochondriacal persons,
 “ and those who have a weak stomach, the
 “ symptoms are much worse; for in such,
 “ if the humours are much corrupted, the
 “ tongue presently grows black, the pulse
 “ small, and extremities cold; they are
 “ oppressed with anxiety; and these symp-
 “ toms

“toms are commonly imputed to the malignity of the distemper, but falsely here; because as soon as the humours which infest the stomach, are corrected and expelled, the symptoms vanish.” Thus far Baglivi.

In the year 1661, and some other years, Sydenham met with the same fever, which he thought the most genuine of any that had fallen under his observation, attended with an inclination to vomit, a dry and foul tongue, sudden failure of strength, and urine turbid or clear, both of which are signs of crudity. In the declension of the disease, a diarrhoea came on (unless prevented by a vomit in the beginning) by which the disease became more stubborn, and afflicted the patient longer. Its proper nature and genius was such, that it seldom continued above fourteen or twenty-one days, when it went off by a gentle moisture on the skin. The method of cure, says the Author, was this: “Where the fever is violent, and the patient young and strong, I bleed; after bleeding, I carefully enquire whether the patient has vomited, or had any urgings to vomit when the fever came on; if he had, I then order a vomit, unless the patient’s tender age, or some remarkable weakness, forbid it. Certainly, to give a vomit when such inclination to vomit
“has

“ has preceded, is so absolutely necessary;
“ that unless the humour occasioning it be
“ evacuated, it will lay a foundation for
“ many dangerous symptoms, which great-
“ ly perplex the physician during the
“ whole time of the cure, and put the
“ patient in no small danger of his life.
“ The chief and most usual of these is a
“ a diarrhœa, which, for the most part,
“ appears in the declension of the fever;
“ in cases where emetics were omitted
“ when indicated in the beginning. For,
“ in the progress of the fever, when Na-
“ ture has somewhat subdued the malig-
“ nant humour in the stomach, and carried
“ it downward into the intestines, they
“ are so fretted by the continual flux of
“ an acrid humour from this fountain in
“ the stomach, that it is impossible but a
“ diarrhœa must ensue. The danger of
“ such a sort of diarrhœa consists in this,
“ that the patient being already much ex-
“ hausted by the disease, is hereby rendered
“ still weaker; and the gentle sweats which
“ used to terminate those fevers, were, by
“ this evacuation, quite prevented. To
“ remove all doubts that this humour,
“ lurking in the stomach, (unless discharg-
“ ed by vomiting) will, in a short time,
“ produce this diarrhœa; you will always
“ find upon inquiry, if at any time a
“ diarrhœa accompanies this fever, that
“ the

“ the patient inclined to vomit in the be-
“ ginning of the disease, and that no vomit
“ was given. You will likewise find, that
“ though the inclination to vomit hath
“ been long over, yet, upon giving an
“ emetic, the diarrhoea will for the most
“ part cease. I have often wondered how it
“ came to pass that the patients should find
“ so great relief from hence; for after the
“ vomit was over, those severe symptoms,
“ sickness of the stomach, anxiety, rest-
“ lessness, deep sighing, blackness of the
“ tongue, &c. which tormented them and
“ terrified their attendants, did usually
“ abate and vanish; and the patients bore
“ the remainder of the disease with good
“ spirits.

“ A vomit ought to be given in the very
“ beginning of the fever, if we could have
“ our choice; for, by this means, we
“ should guard against those terrible symp-
“ toms, which owe their rise to the vitiated
“ redundant humours lodged in the stomach
“ and parts adjoining; nay, and what is
“ more, very likely crush the disease in its
“ infancy, which otherwise would increase,
“ and be protracted, to the great danger of
“ the patient; the disease being nourished by
“ those morbid humours, which are either
“ transmitted in substance through the
“ vessels, and so mixed with the blood, or
“ being greatly corrupted, or almost enve-

"nomed by their long stay in the first
 "passages, do from thence communicate
 "their malignant effluvia to the blood. Of
 "this we have an instance in the cholera
 "morbus; for if we unseasonably stop the
 "vomiting in that disease, the acrid and cor-
 "rupt humours which ought to have been
 "evacuated, being by this means pent in,
 "exert their force and fury on the blood,
 "and kindle up a fever, which, as it is
 "wont to be of a malignant nature, and
 "attended with very dangerous symptoms,
 "so it can hardly be removed without
 "giving an emetic, though the patient
 "have then no propension to vomit.

"But if it should happen, as it fre-
 "quently does, that we are called in too
 "late, and have not an opportunity to
 "give a vomit in the beginning of the
 "fever; yet surely, I should think it ne-
 "cessary to do it at any time of the disease,
 "provided there is no inflammation, and
 "the patient's strength will bear it.

"The vomiting being over, if it should
 "be farther necessary to lessen the violence
 "of the fever, I order a clyster; and if
 "the effervescence of the blood be too
 "great, I repeat it every day, or every
 "other day, as the case requires, even to
 "the tenth day of the disease. But if the
 "patient has lost a great quantity of blood,
 "or is of an advanced age, I then refrain
 "from

“ from clysters, even though the effervescence of the blood should be very great; for it is to be feared they will abate the force of the blood to such a degree, as to render Nature incapable of expelling the disease by a proper crisis. But after the tenth day, when, by these proper evacuations, the patient is out of danger with regard to those symptoms, which are occasioned by too great an ebullition, I take care to keep him costive; things at that time tending towards a separation, I think warm or cordial medicines ought to be more liberally indulged, by which coction is promoted, and a crisis sooner brought on; which, by such a method, generally happens about the fourteenth day. But if cooling medicines have been used too late, and by their means the effervescence is lessened, no wonder if the fever runs to the twenty-first day, and in weak constitutions ill-treated, much longer. This is, moreover, worthy of observation, it sometimes happens, that by the too frequent use of clysters, or other purging medicines, unseasonably prescribed about the declension of the disease, the patient seems to be a little relieved, nay sometimes perfectly freed from all feverish symptoms; yet, in a day or two after, you shall perceive a new fever to

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“ be

“ be kindled, which will run the same
 “ course as the former, unless it happens
 “ to change into an intermittent.”

Huxham believed the *morbis cardiacus* of Celsus, (which evidently was seated in the stomach) to be a species of the slow nervous fever; and in page 89, he gives his idea of the principal cause of it. “ It
 “ seems to me evident,” says he, “ that too
 “ great a lentor of the lymphatic and most
 “ exalted juices of the body, is one of the
 “ conjunct causes of slow nervous fevers;
 “ and I conceive, that as the serum, when
 “ once coagulated by feverish heat, never re-
 “ solves into any fluid fit for the uses of the
 “ animal œconomy, but turns into an acrimo-
 “ monious putrilage; so the ropy stagnant
 “ lymph corrupts by degrees into a putrid
 “ ichor, which must be discharged from the
 “ body by its common outlets, or some artificial drains.” So that Glafs and Huxham differ only about the part of the body in which this viscid lymph is first formed, and the propriety of discharging it when turgid in the first passages, before it has had time to be much corrupted, and taken into the blood. Huxham indeed, page 81, strongly recommends vomiting in the very beginning, and clysters afterwards every second or third day: and although he forbids rough purges, especially when the matter at the beginning is turgid in the
 stomach,

stomach, he does not prohibit rhubarb and manna, &c. after the puke, if necessary. In the *Dissert. de feb. nervosa*, he also mentions the surprising relief which is obtained by vomiting and purging even towards the decline of the fever, by which he has seen the continual fever turned happily into an intermittent. Ballonius gives an exact description of the symptoms arising from acrid or corrupted pituite collected in the stomach, and concludes that the smallness of the pulse, lowness of the spirits, and extreme weakness are the causes of the erroneous practice which neglects the necessary evacuations: for, says he, "As in tertians of the harvest season, faintings are occasioned by acrid bile, so in the *epialæ* of the spring season, the same lowness of spirits and faintings are occasioned by viscid pituite; and every disease which has its seat in the stomach, is always attended with great loss of strength. Fevers which arise from pituita, when they are genuine, use to come on gradually, with alternate little colds and heats." This is surely an exact description of the nervous fever of Huxham: and I am convinced by what Glass has said, and by fair and careful observation for several years, that the slow nervous fever of Huxham, is the *febris phlegmatica*

of the ancients : that the ancient method of treating it, as given first by Galen, then by Ballonius, Baglivi and Sydenham, will require very little alteration : that when an opposite treatment is adopted, or the early evacuations neglected, we may expect to see the same fever which Borelli describes in his letter to Malpighius, or such as we are called in to see every day here, which is sometimes called putrid, and at other times nervous ; although both the putrid and nervous symptoms arise in a great measure from the ignorance of the assistants, rather than from the nature of the complaint : and that many diseases are not so different in their nature, as they appear to be, from the variety of the symptoms attending them, as Boerhaave very well observes, *Aph.* 1056, “ Apparet hos morbos, varietate
 “ quidem infinitos, ratione symptomatum ;
 “ tamen ex origine non adeo composita,
 “ pendere ; neque tam varia medicamenta,
 “ medendive methodum, requirere.” To form a true idea of this epidemic constitution, we must remember, that although it may resemble the bilious constitution of the harvest season in many particulars, while the seat of the disease is confined to the first passages ; yet, in as much as the offending matter is of the phlegmatic glaucous kind, it occasions some difference
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in the symptoms; and requires partly a different method of cure. In the beginning it is more frequently complicated with inflammation than the bilious fever, and after the decline does not require so frequent purging: and the truth in these two observations is confirmed by Sydenham, *Contin. Fev.* 1661, &c. art. 34. "But it
" may be here observed, that purging is
" not so necessary after vernal as after
" autumnal fevers, because," &c. And again, art. 42. with regard to the antiphlogistic method which he found more necessary in spring, and less necessary in autumnal fevers; particularly, repeated and large bleedings. In my opinion, this morbid lentor is not engendered in the bowels from indigestion, but is rather an excrementitious phlegm or pituite, separated from the blood, and deposited in the stomach and bowels; because I always observe the *terrentia morbi* precede the signs of turgid matter. If, during the *terrentia*, I give a vomit, and afterwards a purge, they both procure some relief; but I do not remove what Huxham resembles to the *sperma ranarum*. After some days, when the sure signs of turgid matter appear, I repeat the vomit, and the phlegm comes up in a great quantity, and frequently goes down afterwards spontaneously, or is easily carried downwards by a purge. I would therefore di-

vide this constitution into the following stages: 1st, The *terrentia*, or symptoms which precede the disease. 2^{dly}, The symptoms which appear when it is confined to the bowels. 3^{dly}, When some part of the turgid matter is reabsorbed into the blood, though a great part remains crude and vitiated in the first passages. 4^{thly}, When the bowels are cleared, and the whole crudity is in the blood. 5^{thly}, When the blood begins to clear or dispart itself, either by a flux of spittle, miliary eruption, sweats, or putrid dysentery. It seems, as if the catarrhus lentor of the early spring, not being completely evacuated by spitting, &c. during that season, was by Nature determined towards the glands and *lacunæ* of the *fauces*, *æsophagus*, &c. destined for the secretion of phlegm and mucus, to be evacuated there. And we may observe, that phlegmatic habits require some of these evacuations every year, and at that season of the year which Sydenham calls "*between spring and summer*:" so that, if the pituite of spring, and the bile of harvest be considered, the reason of the old *English* custom of purging every *spring* and *fall*, to prevent fevers, may be seen.

A lady, Mrs. Prior of Twyford, eighty-seven years of age, about fifty years ago, was subject to spring fevers: her nephew,

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Dr.

Dr. Hales of Twyford directed her to take a brisk purge of rhubarb, jalap, and cremor tartar, at four different periods of the spring; one about the middle of March, one about the end of March, one early in April, and the last about the middle of April. The same course was repeated every harvest; one dose about the end of July, two in the month of August, and one about the beginning of September; and to this she imputes the uncommon good state of health which she has enjoyed ever since.

I will now proceed to give some account of what I have observed during fourteen years in London, in the different stages of this constitution, amongst persons of affluence and ease.

1. As soon as Nature begins to separate this pituite from the blood, and deposite it upon the glands and bowels, the sick complain of disturbed rest in bed, and are languid, and not properly refreshed by their sleep as at other times: when they get up, their mouth is clammy, and they are troubled with hauking, reaching, and pumping up phlegm from the throat and fauces: they lose the sensation of hunger, but can eat at meal-time pretty plentifully: soon after meals they become heavy or drowsy, complain of fulness and inactivity, flatulence, and constipation of the bowels:

the pulse is flow, rather small, and the urine is either pale, or much loaded, *jumentosa*, but crude. They seldom complain of thirst or heat; but the tongue is, for the most part foul in the morning. These are the *φοβερὰ* which compose the first stage; and it is evident that Nature may easily be assisted to perform this depuration or depuration in its own way, according to the habit and manner of living of each person.

2. The second stage is more perceptible, because in some it resembles what the French call an indigestion, or what Sydenham calls a surfeit, *An. 1669, cap. ii. art. i.* "There is also an indisposition caused by a surfeit, which happens at any time of the year, which, with respect to its symptoms, resembles the *cholera morbus*, and yields to the same treatment, and yet it is of a different kind." In others, it is attended with the symptoms of turgid matter in the stomach or bowels, above-mentioned, and requires immediate evacuation according to the seat of the turgid matter. But in some the matter is of an unactive nature, lies in the duodenum, and prevents the excretion of the bile, so as to occasion a jaundice, which is more common at this season of the year than at any other. Sometimes this matter becomes
acid,

acid, and brings on a species of diarrhœa, with gripes and flatulence, which Sydenham says cannot be cured without vomiting. I have seen the belly so distended with wind and pituite, that the disease has sometimes been mistaken for a tympany, and at other times for a dropsy; and yet all has been removed in a short time by vomits, purges, and an aperient diet, with the addition of moderate exercise. The dry gripes with obstinate constipation, so frequent at this season, seem to arise from the same cause, and always yield to the same treatment.

Thus far the disease may proceed without producing any great alteration in the pulse; and it cannot therefore be called a *stated fever*: it is, however, a state of universal crudity, and general disorder of the natural secretions and excretions; the menses are obstructed, the gout will not form; issues become foul, and instead of critical hæmorrhoids, there are only painful and blind piles; symptoms which always disappear as soon as the morbid lentor is evacuated; for the load being removed, the free circulation is restored, and the natural functions are performed, according to different habits. But if the offending excrementitious matter is suffered to remain and corrupt, the thinner parts of it are reabsorbed into the blood, and then a fever is brought on.

3. A fever, says Sydenham, is the ordinary means by which Nature removes every species of acrimony out of the blood, and the beginning of every fever is a cold fit. All the symptoms which have preceded the cold fit and rigour, are but the *terrentia febris*, and the stated fever is only to be reckoned from the first chilliness, after which the heat naturally follows, to perform the coction: if this coction is performed without any new fomes superadded to the distemper, then a critical discharge of the morbid cause is the regular constant consequence; but if fresh fomes is superadded during the *hot fit*, instead of a critical discharge, a fresh, chilly or *cold fit* will supervene: These alternate heats and chilliness frequently succeeding each other, without any considerable, effectual critical discharge, constitute the *febris epialos* of the ancients, which is mentioned by Hippocrates, Lib. *de A. L. & Aq.* iv. 7. l. 4. epid. x. 9. *L. de Superfect.* xxix. 3. and described by Galen, Lib. ii. *de Diff. Febr.* cap. 6. This is the state in which I suppose the morbid matter to be partly in the first passages, and partly in the blood; and of which I shall relate a case.

Mrs. C. of G. P. Street, was taken with a fever with the following symptoms, alternate heats and colds, a faintness and anxiety, with flying pains in the head,
back,

back, and belly. She was then in the country where the apothecary gave her saline draughts, and observing, that after three days the urine was muddy, and the symptoms frequently abated, he supposed the disease to be a double quotidian ague, and administered the bark. By the time she had taken an ounce, the remissions were lost, and the fever became very ill-conditioned; she was brought to town, and I found her quite sunk and low; a clammy sweat all over the neck and breast, her pulse small and very quick, frequent sighing, mouth foul and clammy, skin hot, belly swelled, perpetual anxiety and restlessness, pain in the head, back, hips, and pit of the stomach; but no desire to drink; the urine was rendered in small quantity, and of a whey colour, but crude; there were, however, no signs of inflammation nor indications for bleeding; a vomit was therefore given, *vin. ipecacuan. ℥i. vin. antim. ℥i.* This having no effect, in an hour afterwards she took *vin. ipecacuan. ℥ss. oxymel. scill. ℥ij.* then she began to reach, and brought off a great deal of vitrious pituite by drinking largely an infusion of horse-raddish with hydromel: In the evening a clyster was given, and a draught of manna, soluble tartar, and rhubarb. Next morning I found the draught had had no effect, and that the pains in the
loins

loins and hips were intolerable; the belly was distended, and she had a frequent inclination to go to stool, but nothing came away; the pulse, however, was not so small, the stomach easier, and she began to drink some hydromel, with a little oxymel in it. I ordered the clyster to be repeated, and a purging ptisan, to be taken every hour till she should be purged. This had the desired effect; for, after four large stools, all the pains went off, and she slept an hour at a time frequently through the night. The pulse was about one hundred and twelve, more full and regular; her eyes more clear, and colour returned in her face; mouth more clean, drank plentifully, and was less dejected: the urine was of a pale straw colour, quite crude, and in large quantity. I ordered *sal. pol.* ℥i. to be given once in six hours; and this kept her body open for two days; after which the complaint was left to Nature and proper diet. In about three days afterwards, she was taken in the evening with a cold fit, which lasted an hour, and was succeeded by a considerable hot fit, and a most profuse universal sweat, which lasted six hours; she then had two large *poultaceous* stools, and the fever left her. She now began an infusion of chamomile flowers, which she continued about a fortnight, and has had no complaint since,

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In this case it appears, that while the stomach was loaded with pituite, a strong emetic was necessary to puke her; that while the bowels were loaded with pituite, a strong cathartic was necessary to purge; that after the load was evacuated, four scruples of *sal. polychrest* were sufficient to keep the body open; and that after the seventh day, the first passages were cleared, and the whole of the morbid matter was in the blood; which, being concocted in four or five days more, was completely evacuated by a perfect crisis, without the aid of any drug.

While I attended Mrs. C. her son Theophilus, a lad of about fourteen years old, was brought home from school ill of the same fever, but with evident signs of inflammation; he was therefore blooded plentifully; his blood had no fizy crust, but when cold was of a firm, strong texture; the pulse became soft in the evening, and he complained much of being sick, and loathed his drink; a vomit was given, and afterwards a purge, both of which operated well: the next day he began taking the *sal. polychrest* three or four times a day, and in four days more the fever terminated by a critical sweat; but as he had no stools afterwards, he was purged with rhubarb and cremor tartar,

tartar, and soon recovered his usual strength and good health.

I could multiply cases of the same kind, if it was necessary; but I shall only observe,
1. That all who had critical sweats on the fourth day after the evacuations, had a perfect crisis on the seventh, after which the fever went quite off, or came to a regular intermittent. 2. That the urine, which was muddy in the beginning, became clear after the first evacuations, and continued so till something critical happened. 3. That every perfect crisis was preceded by a chilliness, after which heat, sweat, turbid water, and soft stools succeeded. 4. When the bowels are clear, and the whole crudity is in the blood, the symptoms are, according to the treatment, exactly as described by Sydenham; that is, if the evacuations have been seasonable, proper, and not persisted in too long, the whole fever will terminate regularly on or before the fourteenth day, and perhaps upon the seventh, as was the case of Theophilus C. but if the evacuations have been neglected, the fever will be long, and the termination irregular; and if, instead of seasonable evacuations, heating medicines are persisted in, we may expect all the train of bad symptoms that occur in miliary fevers, or even in fevers that are petechial

petechial and putrid. If the antiphlogistic method has been continued beyond a certain degree, and a certain period of the fever, we may expect signs of debility, a want of power to perform coction, a tedious fever, swelled legs, and very slow recovery. Of this I shall give an instance in the case of Mr. J. B. in the Strand.

I first saw him on the third of April 1769, which I found was the twenty-fourth day of the fever. In the beginning he had been plentifully blooded, and some time after, had taken a vomit; his body had been kept constantly open, and on the intermediate days he had taken spir. minder. nitre, and the like, with low diet, and plenty of thin watry liquors: by these means, although coction had been retarded, yet he never had any of the terrible symptoms so common in this fever, when it is treated in an opposite manner; he had no great sickness at the stomach, no very foul mouth, no violent purging nor gripes, no miliary eruption nor delirium; his pulse was very low, small, and quick, from one hundred and ten to one hundred and eighteen; his countenance was pale and pincht, his skin was hot at times, he had neither appetite nor thirst, could get no sleep, was constantly uneasy, and had a considerable increase of all the symptoms, with great pain in the head regularly every day from two o'clock in

in the afternoon all night long: this exacerbation went off in a great degree without any critical evacuation, except an uncommon flow of pale urine may be called such. The bark had been tried, by which the remission was lost, and all the symptoms greatly increased. I directed that the patient should sit up some part of the day; that he should drink a basin of gruel with orange and wine early in the morning, and endeavour to sleep after it; but that if he did not sleep, or at least perspire before nine o'clock, he should be taken out of bed; at noon I directed, a basin of beef-tea to be given, and one glass of Madeira wine after it, which was about two hours before the exacerbation; as soon as he returned to bed, I ordered him to drink freely of wine-whey, and try to keep himself quiet; also to take every six hours a draught:

R *Fulep. e camphor. spir. minder. āā*
ʒiij. aq. menth. simp. ʒi. calc. antim.
illot. gr. viij. m. f. haust.

He continued this method without any advantage until the twenty-eighth day, when I ordered a very gentle puke in the forenoon; after which the exacerbation came on later, but returned at the usual hour on the twenty-ninth; a little rhubarb was added to the draught of that night, because

because he had been some days without passage; it operated on the morning of the thirtieth, but there was no alteration as to the fever till the thirty-second, when a blister was applied between the shoulders, and some *spir. vol. aromat.* was added to the draughts. These remedies increased the heat, and again the remission was lost for two days.

Finding, therefore, that all my prescriptions had been ineffectual, and that some of them had done harm, I laid aside all medicine, and only endeavoured to vary his diet according to the pulse and symptoms: after this the fever went on as usual, but the patient recovered strength daily. Upon the thirty-ninth day, I ventured to send him into the country, and in ten days more he was free from fever, although his recovery was so gradual, that I could perceive no real crisis. I have since tried the same expedient in other cases, and after the bowels have been properly cleared, desisted from all medicine, and I have succeeded better than ever I had done before in this fever; coction has been performed in fewer days, and the crisis has been more perfect; either the whole fever has gone quite off, or been converted into a regular ague. Sydenham's opinion therefore, that Nature is very active at this season, and seldom requires a spur, is well-founded.

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After the first proper and effectual evacuations, the pulse ought to become more soft and large, and the water change from being turbid and crude, to clear and crude. Thus things continue for some days, then the water becomes turbid again, and then the crisis is at hand: but to succeed in this method, great care must be taken in diet, both as to the times of eating, and the food and liquor according to the intentions of cure proposed; by such means the fever may be as well regulated to promote coction as by any other, and kept exactly within proper bounds, according to the precepts of Sydenham, *Contin. Fever* 1661, &c. art. 27.

“ I cannot imagine what physicians mean
 “ by their frequent precepts for giving re-
 “ medies to promote the concoction of the
 “ febrile matter, which they often talk of
 “ even in the beginning of the distemper.
 “ In the beginning, evacuations are neces-
 “ sary to moderate the impetuosity of Na-
 “ ture; but towards the end, nourishment
 “ and support must be administered to en-
 “ able Nature to perform the crisis.” Thus
 it appears, that persisting in the high anti-
 phlogistic method at all events, beyond
 a certain degree and period of the distem-
 per, rather prevents than effects a cure.
 “ It is remarkable,” says Sydenham, l. c.
 art. 28. “ that though the patient may
 “ sometimes seem to be a little relieved by

“ the use of clysters, or other purgatives,
“ unseasonably given at the end of the
“ distemper, and even perhaps to be totally
“ freed from the fever; yet a day or two
“ after, it happens, that the former fever
“ does not appear so much to return, as a
“ new one to arise; for chilliness and shi-
“ vering presently supervene, and are soon
“ followed by heat and by a fever, which,
“ unless it degenerates into an intermittent,
“ runs its course as already described.”

This observation I frequently saw verified during my residence in France, where they persisted too much, and too long in bleeding, purging, and low diet; but in London, the opposite extreme is more frequent, as well as over all Germany; of which Duhaen complains with great judgment and justice. The cause of this pernicious practice in Germany seems to be the progress that has been made in the art of chymistry. In chymistry new and strange phenomena have induced some persons to substitute hypothesis for experiment, and persuaded them that they could correct, separate, expel, or precipitate, any constituent part of the juices of a living animal, with as great ease and certainty, as of any liquor in a bottle. Unhappily this delusion coincides with the interest of many merchants, who import and sell the boasted materials; and the im-

pudent and ignorant pretenders to secrets and nostrums, who, to the shame of our laws, are suffered to commit murder with impunity; whereas the true practice of physic is built upon the knowledge of diseases, and the operations of Nature; to understand which, requires time, patience, and observation.

I know two persons, both in considerable practice, and both honest men, who have constantly treated this fever erroneously by opposite methods; one persisted in the antiphlogistic method too long, the other quitted it too soon; one evacuated too freely and too frequently, the other too sparingly and too seldom; one never gave cordial, nor opiate, nor good nourishment; the other, after the first four days, ordered nothing but cordials, opiates, and animal food. A compound of these two would have made one good physician. Their error, however, was not equally fatal; the patients of the first seldom died, but their recovery was slow and imperfect; they had swelled legs, loss of strength, want of appetite, and all the train of symptoms that arise from the lax fibre. The patients of the other frequently died; those that recovered were generally so much injured by the violence of the fever, that they were ever afterwards subject to the gout, the rheumatism, the impetigo, and other symptoms

symptoms which arise from acrid juices, and obstructed bowels. The *phlogistic error*, therefore, if I may be allowed the expression, is more dangerous than the *antiphlogistic*, in fevers of the spring, even of the phlegmatic kind. In them I have, in general, taken Sydenham for my guide; I have sometimes varied from his practice, but it is always with the diffidence and caution that his wonderful sagacity and skill ought to inspire. With this temper I shall consider the following questions: 1. When is the antiphlogistic treatment necessary? To what degree ought it to be carried? and, How long ought it to be persisted in? 2. At what period of the fever is a different method of treatment necessary? To what degree ought this cordial or restorative method be carried? and How long ought it to be persisted in?

In answering these questions, I shall take no notice of the anomalous symptoms which arise from erroneous practice, because they do not properly belong to the disease, but to the drugs rashly administered under the specious denomination of alterative, alexiphermic, febrifuge, or specific: I shall confine myself to the progress of the genuine fever, which I have always found to be regular and uniform, except, perhaps, with respect to time; and even this difference I have frequently been able to

account for, by considering the variety of constitutions and other circumstances of the sick.

1. I take it for granted, that some degree of an antiphlogistic treatment has been found necessary in the very beginning of all the common fevers in general, but particularly of spring fevers. In these, for the most part, Nature demands plentiful bleeding, by evident signs of inflammation; a reduction of diet, by the loathing of food; and a plentiful dilution, by an eager desire of subacid watery liquors: Nature also, in the progress of the disease, very soon demands a vomit, or a purge, or both, by such signs of turgid matter in the stomach or bowels, as cannot well be mistaken. The antiphlogistic method, therefore, ought to take place as early as possible, certainly within the first four days. If it should happen, however, as is too often the case, that proper assistance has not been called in till these days are elapsed, the same must notwithstanding be entered upon, if either the signs of inflammation, or turgid matter, should so require*.

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* In the days of Sydenham, there was a difference in opinion with regard to the proper time of bleeding in fevers attended with turgid matter in the bowels, and where this evacuation was indicated. Such as reasoned from the known laws of capillary tubes, and hydraulics, affirmed, that emptying the veins before the
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The degree of evacuation, and thinness of the diet must depend on the violence of the symptoms; the effect of the first evacuations, the constitution, age, strength, and manner

the bowels were properly cleared, increased the suction of the lacteals, and promoted the absorption of the morbid colluvies from the bowels into the blood. Sydenham again had learned from experience, that, on the contrary, a seasonable bleeding promoted all the secretions and excretions; that the skin became more moist, the mouth more moist, the urine more coloured, and that both emetics and cathartics acted with greater ease and effect. The fact is true, and I take the *rationale* to be as follows.

There is a certain degree of heat and motion which constitutes perfect health in every animal. All the operations of common life make some deviation from this standard; but habit has rendered them so familiar, that they are not adverted to: it is, however, true, that a curious and exact observer can perceive his heat, or pulse, or both, to vary continually, and that they never stand long at the point of perfect health, but rather pass and repass it at short intervals. If any accident renders the deviation inconsiderable, it will force itself upon the notice of the negligent and thoughtless; then they will feel what the Greeks called the *Ποσειδά*, and Celsus translates *terrentia morbi*; the harbingers of a disease, which, if long continued, become stated.

While this quantity of heat and motion oscillates backwards and forwards through the point of perfect health, and does not remain long on either side, all the natural functions are performed well enough for the common purposes of life, and the secretions and excretions proceed as usual, and consequently are insensible; such as the regular, constant, common secretion of saliva, urine, bile, perspiration, &c. but if, by any accident, this quantity of heat and motion is in-

manner of life of the sick; the weather, winds, and season of the year; the nearer the summer solstice the less necessary is large bleeding, but emetics and cathartics may be, and for the most part, are equally necessary,

increased or diminished beyond a certain degree, and there continued beyond a certain time, a disagreeable sensation is felt, and some or other of the natural functions are disturbed, or perhaps destroyed: at the same time the secretions and excretions become irregular; some are too much promoted, while others are retarded, or stopt: and these disorders in the animal economy will continue till the quantity of heat and motion is brought nearer to the standard of health. The degree of heat and motion which is salutary and agreeable to us, we call warmth; if it exceeds, we call it heat; if it falls short, we call it cold: the extremes of these are equally pernicious to secretion and excretion. Thus there is a degree of heat which promotes insensible perspiration to the degree of sweating, and may be called the sweating point, under which a sweat cannot be produced: but what is more surprising, if the heat is pushed far beyond the sweating point, or even if it is long continued so high as the sweating point, the skin will become harsh and dry, and we never can recal even the natural perspiration till the heat is reduced below the point that first produced the sweat. The same is true of every gland in the body; and if one will consider every surface, external and internal, of the whole body, not as a dead philter that suffers every thing to pass, or otherwise, according to the calibre of its pores; but as a true organized gland, performing a particular secretion and excretion *sui generis*, and peculiar to itself; then we shall be able to comprehend how bleeding in all cases where it is indicated, will promote and not retard secretion and excretion of every kind. Suppose the body already overheated, and I increase that heat by the irritation of a purge, will the glandular

necessary, especially if the westerly and southerly winds of this season set in with rainy soft weather; we may then expect to find the blood beginning to dissolve a little, the solids becoming more soft, and the spring fevers giving place to a different epidemic constitution, in which clysters and gentle purgatives are very necessary. But in the early part of the spring, and during the northerly and easterly winds, it may be necessary to repeat the bleeding again and again, to reduce the diet to drink alone, and to keep the body constantly open for several days, before all the symptoms

glandular parts of the bowels yield their contents so kindly as if I cool first by bleeding, and then administer the purge?

In the beginning of all fevers, there is some degree of spasm, which tempted Hoffman to define a fever *spasmus universalis*; a seasonable proper bleeding acts as an antispasmodic in many such cases, and removes the strictures which might otherwise impede the operations of Nature in her endeavours to evacuate even turgid matter. I have seen, in some fevers, a vomiting and purging come on spontaneously, immediately after bleeding, that has cleared the whole *primæ viæ* critically. I, therefore, from reason and constant experience, recommend this observation of Sydenham, that even during the putrid diathesis, when much evacuation is required in people full of blood, let more or less blood be taken, according to the strength and circumstances of the patient, in the first place, and then proceed to the other evacuations. Now, if this is proper in the season of the putrid diathesis, surely it must be absolutely necessary during the inflammatory one.

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of inflammation and turgid matter are removed. Thus I understand Sydenham, when he says, that ten days are, or may be necessary for that purpose: I have, however, sometimes seen four days do all this business, and very often seven; it seldom requires more than ten; which, therefore, I fix as the most common time necessary to remove the inflammation, and evacuate the turgid matter of the stomach and bowels, in any common pituitous fever, properly treated from the beginning; soon after which it ought to go quite off, or intermit, or be changed into a true, regular, critical fever on or before the fourteenth day at farthest; after which an antiseptic method becomes necessary to support Nature, that she may be able to perform the necessary coction and crisis in a different manner.

The second question is thus answered by Sydenham: "When the symptoms of inflammation are gone off, when there are no symptoms of turgid matter in the bowels, when the remissions are long and pretty regular; there is reason to believe that the whole morbid matter is in the blood, and that Nature has begun coction, and is preparing for a crisis by the skin, then I suffered the body to become costive, and ordered a more cordial diet." His cordial was some strong beer, which he allowed them to add to the small beer formerly

formerly allowed for common drink, and some light animal food once a day. Sometimes, indeed, Nature may perhaps require a stimulus at this period of the disease, but I believe it will be found very rare: I commonly find fever enough remaining for the purpose of coction, except when the preceding evacuations have been too plentiful, or the constitution decayed; and even then, I find Nature better supported by a mild but nourishing diet, than by drugs. With regard to the choice of diet, I find great advantage in consulting with the sick, and it is surprising what instinct will do in such cases.

A ridiculous story will here furnish some useful observations, and therefore I will tell it: A French physician, who practised in Westphalia, attended a young man of that country in a *synochus non putris* of the spring season, who, according to the custom of the country, had been used to eat raw bacon. The Doctor, *à la mode de France*, treated this fever with large and frequent bleeding and purging till the fourteenth day, when the patient longed exceedingly for some raw bacon; the Doctor declared his disapprobation in very strong terms; however, the people of the house indulged the longing of the sick man; the bacon was eaten, the fever increased, and a perfect crisis was procured. Soon after
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the same physician attended a French soldier in a fever of the same kind; upon the fourteenth day the doctor ordered him to eat a piece of raw bacon; the poor Frenchman was shocked at the idea of raw meat; however, the doctor must be obeyed, and the bacon was administered in his presence; he returned the next morning, well-assured in his own mind, that he should find the soldier recovered; but, to his great surprise, he was dead! Hence, concludes the doctor, in his account of this fever, "I infer, that upon the fourteenth day, raw bacon cures a Westphalian, but infallibly kills a Frenchman."

This, however, was a rash conclusion; in the Westphalian coction had taken place, and his desire for victuals was a sign of it; the bacon acted as a cordial, that is, produced a temporary fever, and thus the crisis was completed: whereas in the Frenchman, although the fourteenth day was come, yet there had been no coction, and rather a disgust than a desire of eating was a sure sign of crudity; consequently the cordial was to him a poison, by moving what was not concocted: had the doctor considered the precepts of Hippocrates, "*Cocta sunt movenda, non incocta*;" he would have seen the propriety of a cordial to the Westphalian, and perhaps would not have opposed even the bacon; he
might

might have seen the signs of crudity in the Frenchman, and therefore would have waited for the proper time, before he had administered this, or any other cordial. The poor soldier died, not because he was a Frenchman, but because the doctor ventured upon a strong remedy prematurely.

Upon this story I shall make two observations : first, No medical practitioner ought to regulate his practice by the accounts, however attested, of people who are ignorant of the nature of diseases : they may know the facts, and relate them faithfully ; but they cannot know all the circumstances by which they are or ought to be distinguished ; and without the knowledge of which, no practical conclusion can be properly drawn from them. Secondly, Food of difficult digestion acts in the same manner as a cordial ; they both raise a temporary fever, with heat, and quick pulse, with this difference, the effect of a volatile draught is speedy and short, that of a piece of animal food is slow, but permanent ; for it continues to act as long as it remains in the stomach undigested, which, if the person is in health, is a considerable time, and if in a fever much longer ; because the natural functions are retarded by the violence of the distemper. The Indians on the coast of Hudson's Bay, are known to drink train oil by way of cordial during

during the severity of their dreadful winter, and we now see, how it may answer their purpose. There is, however, another difference between a cordial draught and cordial diet; the draught acts easily, but affords no nourishment after the increased fever is over; so that it makes a great waste without giving any recruit of fresh *pabulum vite*; whereas the cordial diet fatigues during the digestion, but being concocted, it nourishes and supports: hence in cases of repletion, and before evacuation, nourishing diet is the worst of all cordials; but after great evacuation, and lingering fevers, it may succeed better than more brisk stimulants. And this is the reason that a milk diet is not proper in acute fevers at all, but is proper in lingering fevers and sharp juices: cows milk is too rich, and cannot be given but in cases where strong cordials are indicated; but thin milk, such as mares, camels, and asses, &c. and above all, butter milk, or milk deprived of its oil, and its texture broken, may be ventured upon early in low or putrid fevers. As all cordials are not of the same nature, the proper choice of them is of great consequence: And here also, the longings of the sick frequently direct to the most proper, as we see, in the putrid fevers, people longing for cold liquors, very sour punch, wine, or beer: and indeed these

these liquors have every quality that a cordial can possess; they have inflammable spirit, which acts as soon as taken down; they have some consistence, which renders them (particularly beer) a little difficult to digest, and consequently they will maintain the heat for some time; and when digested, they afford that sort of nourishment to which the drinkers of them are accustomed, and to whose palate, stomach, and nerves they are grateful, not to say any thing of their antiseptic qualities. I confess then, when mere cordials are in question, I can find them no where so well as in punch, cyder, wine or beer, according to the desire, or custom of the sick. A physician should by no means hastily refuse to gratify the longings of the sick, which are generally the cravings of Nature. He should, however, superintend and regulate the quantity according to the effect; for fomented liquors are so grateful to the stomach, palate, and nerves of some people, that care is necessary to prevent excess. Cordials then are necessary only when Nature is sunk, and unable to perform her office, as Sydenham calls it: "When the fermentation is too low, and
" towards the end of the disease, when
" Nature is fatigued by the duration of
" the fever, and the former evacuations,
" *An.* 1661, art 31. But when the fer-
" mentation

“mentation neither rises too high, nor
 “sinks too low; I leave it in that state,
 “without prescribing any medicine.”

But, as he observes, Nature is not always sunk when she is unable to perform her office: in the beginning of the disease, she is stunned and oppressed with plethora, inflammation, or turgid matter in the first passages; remove these obstacles properly, and she will soon recover, exert her powers, and perform her functions.

Cordial diet ought to be continued, increased, or diminished, according to the degree of fermentation it occasions; which may be determined by the quantity of fever, night sweat, and duration of the remission the following day: it ought to be administered during the remission; the heat and exacerbation that follows will be increased, which does no harm; it is the *perturbatio critica*, and will go off by the night sweat, and promote coction, as may be seen by the excretions the next day during the hours of remission; but if, on the contrary, the heat is much increased, and the sweat does not succeed with good signs of coction, and better remission the following day, then the cordial is altogether improper, or has been overdosed. This may be called the second stage, or suppurating state of this fever, and always lasts for some days, according to the
 former

former treatment, and other circumstances of the sick: it returns every night with heat and fever, goes off by moderate night sweats, and leaves a good remission, with signs of coction, turbid water, moist mouth and bowels. During these days of coction and gradual expulsion all great evacuations are hurtful; and when spontaneous, they are rather to be feared than encouraged, because they serve to weaken Nature, rather than carry off the morbid cause; for the morbid lentor cannot be carried off till Nature has had time to concoct it, that is, subdue it, and separate it from the sound juices, and then prepare it for expulsion: and we constantly find, that profuse, long continued, crude sweating; copious, watery, thin, crude stools; large quantities of pale, crude urine; and every species of crude eruption, are bad symptoms.

Mr. J. M. was blooded, vomited, and purged within the first seven days in a *synochus non putris*; a profuse sweat then came on, which at first seemed to be critical, but being continued proved fatal; for an inflammation in the brain soon succeeded, and he died raving mad, as if all the vast quantity of watery liquors he took down, had been drained off immediately, and the remainder become more and more fizy.

In the month of April, some years ago, a gentleman of a delicate habit, was taken with a *synochus non putris*, and a very considerable degree of inflammation; so that three bleedings did not much reduce his pulse, and the blood last drawn was as fizy as the first, like that taken in a pleurisy. He brought up a great deal of vitrious phlegm, by a gentle emetic upon the fourth day, which took off the sickness of the stomach, pain in the head, and disagreeable taste in the mouth: a dose of soft physic the following day removed the pain of the back and loins: the body was kept open to the seventh day, when he again became restless, hot, and uneasy, delirious, and lothed his drink; it was proposed to administer Tissot's *emetico-catharticum*: this medicine, instead of vomiting, as was intended, brought on a smart purging, which reduced the patient so much, that he sunk daily, and died upon the morning of the eleventh day. Hence I infer, that great evacuations during the days of suppuration or coction, exhaust Nature, and disturb the operation; which seems to me to be best regulated by diet, as the case may require.

Another gentleman was reduced nearly to the same situation by a dose of physic given unseasonably; but was saved by blisters, and camphorated diaphoretic medicines, which

which made a revulsion from the bowels ; but the recovery was very tedious.

Thus far most able practitioners are agreed ; but whether miliary eruptions are salutary and critical, or symptomatic and noxious, is still in dispute. In general it may be said, that every eruption after coction and turgidity, which brings relief, is salutary, and ought not to be repelled ; but every eruption before coction and turgidity, which brings no relief, is symptomatic ; and therefore should not be promoted, nor indeed attended to, otherwise than as included with other symptoms in the original disease. An eminent physician of my acquaintance, caught a miliary fever from a noble patient, and recovered by a critical eruption, with immediate abatement of fever and all the symptoms ; but repeated efforts were required to complete the crisis, which was not perfect till the eruption came out all over the legs. But in common, the miliary eruptions which I have met with, have not been of this kind, but merely symptoms of the malignity of the distemper, or signs of injudicious practice.

The fevers in which I have met with these eruptions, both red and white, are the milk fever (or *inflammatio uteri* of Hoffman) ; the bilious or yellow fever of harvest, of which in its place ; the putrid fever of sum-

mer, of which presently; and this spring fever, now in question, and in which a miliary eruption is very easily produced, by heating regimen and drugs, at any period of the disease.

Lying-in women, about the third day from delivery, are commonly seized with slight rigours, succeeded by a little increase of heat, pulse, some thirst, pain and tension of both breasts, and the appearance of milk in them, without diminishing much the uterine discharges. If the patient is kept cool, and well supplied with thin, cooling liquors, the milk begins to flow, and the breasts become soft; as the milk increases, the uterine discharges gradually diminish, till they go quite off: if the milk is repelled, the fever frequently returns, the uterine discharges increase and continue for many days; and the turgid matter is, in a great measure, discharged this way, as well as by stool, sweat, and sometimes, though seldom, by a great flow of milky urine: for this discharge, however effected, many days are required. But if, instead of the cool regimen, heating diet and drugs, with close rooms and many bed clothes, are employed to force the whole or principal part of it by the skin, a compound inflammation must be the first consequence, and afterwards a crude or miliary eruption. I am sorry to say,
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that this practice, in my memory, was very common in London, and is still so among some of the more ignorant people. I was once sent for to a Lady who had her milk repelled, and who had a true pleurisy with a miliary eruption; she lost some blood, which was as fizy as possible, and had her body opened every day with manna and soluble tartar, till all the symptoms of the fever disappeared. As soon as the pain in the side abated, the uterine discharges, which had stopt, returned; the urine then became turbid, and the skin moist: as for the miliary eruption, it was wholly disregarded because it gave no relief. Here then the blood was not dissolved, nor the eruption critical *.

But

* In the month of June, when the weather was hot, a young gentleman, Mr. V. Jun. found some disorder in his stomach and bowels for several days; he thought it too trifling to complain of, but resolved to dance it off in an assembly; accordingly, he danced the whole night, sweated profusely, drank a great deal of thin, warm liquors, went to bed at six or seven next morning, and expected to sleep sound, and wake in good health: but he was much disappointed; he was seized with a most violent pain in his head and back, great sickness at the stomach, great heat, restlessness, and perpetual sighing. The next day he was bled plentifully, and his body opened with salts and manna; after which he was ordered saline draughts with plenty of thin, cooling liquors. The fourth day, there came on a gentle, breathing sweat, which continued twenty-four hours, but gave little relief; only the pulse

But to return to the *synochus non putris*: I never saw it go off by any critical eruption; small ebullitions, or pimples about the mouth, or upon the skin, are signs of coction, and therefore seem to be salutary appear-

became less hard, but his mouth became very foul, and the other symptoms continued. Upon the evening of the seventh day he was vomited, and some *calx antim.* was added to his draughts. The vomit puked him thrice, and purged him afterwards in the night. The eighth day, the pains in the head and loins abated, and his mouth became much cleaner, owing, perhaps, to the great quantity of red currants he had eaten, and he was sensible of having had some good sleep in the night, for the first time: that evening some julep of camphor was added to the draughts, with the calx of antimony; and the night of the ninth day fifteen drops of the *tinctura thebaica* were added to the night draughts only; the consequence was, that he sweated profusely, and there came out a considerable miliary eruption. The next day, being the tenth, the pains were gone, the mouth moist, the skin more cool; but the head was giddy, the urine pale and crude, the pulse quick and small, and he complained of weakness; he had a good stool that morning, and indeed every day regularly. His diet was mended, and the quantity of wine in his sippings increased; he was directed to continue the ripe fruit at pleasure, to take the same draughts, and at night the anodyne as before. That night he sweated again, and next morning, the eleventh day, the miliary eruption was greatly increased all over the neck and shoulders, breast, arms, and other parts. The sweat continued all the eleventh day, during which time he was frequently shifted; seemed easy, and at night said, he was quite happy, and not weakened by the sweat. He continued the saline draughts, and was pretty easy all the twelfth and thirteenth days, but

appearances; but with regard to the nature of the whole fever, it always terminates gradually; the more I see, and the more I think of this fever, the more my opinion that it should be treated in the simple way, is.

still the urine was crude and pale, and the pulse quick. Upon the fourteenth day, there came on a considerable cold and shivering for an hour, with a good deal of rigour, then a smart hot fit, with a great flushing of the skin, which lasted two hours, and was succeeded by a profuse sweat; but no miliary eruption any where. This sweat abated in about five hours, when he had a plentiful poultaceous stool, and made a considerable quantity of well concocted water, and had every sign of coction and crisis. In short, it proved a regular single tertian, and after the third fit was cured by the bark. This gentleman had a much better and speedier recovery than some others who had the same fever about that time, but without any ague. In them the antiphlogistic method was continued too long, that is, to the fourteenth day; in him the diaphoretics were begun too soon, *i. e.* upon the ninth day. I now find the eleventh, as Sydenham did, to be, generally speaking, the proper day to make this alteration upon, and then to proceed gradually, not adding the opiate before the fourteenth, unless the symptom of weakness be pressing, in which case, I find opium, joined with camphor, to be the most effectual of all cordials.

This case happened some years ago, and I made some animadversions upon it in my journal, of which the following is a copy:

Now, may we not conclude, that the beginning of this fever was the collected phlegm, pituite, or whatever it may be called, in his stomach and bowels, which first occasioned the sense of heaviness and oppression, that is, the *terrentia febris*; but being at-

is confirmed: after it is reduced by the first necessary evacuations as directed above, and is become moderate, and regular in the remissions, we ought to attend solely

nuated by the motion and heat of dancing, and diluted by plenty of thin, warm liquors, was in part absorbed into the blood, and there produced an ardent fever, which was kept under by bleeding and opening medicines: that after the bowels were unloaded by vomiting and purging, the signs of turgid matter in them, such as the pain of the head and loins, sunk pulse, &c. disappeared, the circulation became more free, and the affair of coction began to take place: it was a pity that the strong diaphoretic was given before the signs of coction were better marked. This was the cause of a miliary, or crude eruption, which, although it discharged some part of the morbid lentor by repeated efforts, yet the real critical discharge did not take place till the fourteenth day, after a more perfect preparation on the twelfth and thirteenth days; and then one fit of a tertian seems to have done more in a few hours, than many days of a continual fever could do. From this case, by the bye, appears the necessity of observing carefully the changes of the winds and weather: for at this very time, *viz.* the fourteenth day of this fever, a fall of heavy rain cooled the air; and I saw several simple agues which were not preceded by any other fever, though it was so late in the season.

May we not also infer, that a miliary eruption, for the most part, denotes but partial coction, and requires many efforts before it brings about a thorough crisis? And if it is so, no wonder that this kind of fever should be tedious: What need we then, by violent heating medicines, force out an eruption which is not critical? Had we not better wait patiently for coction first? Surely a restorative antiseptic diet is better than heating cordials in such a case.

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to regimen, by the help of which it may be kept in a state proper to perform coction: till coction is performed, no considerable evacuation ought to be attempted after the second stage of the fever is begun; nor should Nature be hurried by any of the drugs which are falsely supposed to promote coction, because they are all of a stimulating and heating quality. As soon as coction is performed, Nature always attempts the expulsion of the morbid matter, by some or all of the common outlets; and of them the skin is the most considerable in this fever; nor do I find the crisis ever perfect, till the night kindly sweats begin to flow. If Nature is found equal to the task, we ought not to interfere, nor to grudge her time: if she is deficient indeed, we may assist her with propriety and advantage, especially if we are careful gradually to promote that discharge which relieves her most, and neither to push it too hastily, nor persist in it too long. After the second stage of this fever, that is, after the remissions are long and regular, I do not find purging of any service before there is a strong sediment in the water: a clyster indeed may be given throughout, as often as the body is very costive, but even that is seldom necessary.

As coction then is absolutely necessary before expulsion can be attempted with propriety

propriety in any fever which is not truly malignant, it is highly necessary to be able to discover the signs of coction. The first forerunner of coction is an abatement of the symptoms ; for, as crude matter is acrid, and stimulates Nature too much, the symptoms of irritation must continue till the *causa irritans* is altered or expelled ; but as soon as the pulse becomes more slow, soft and large, the burning, dry heat of the skin, and the dryness of the mouth are abated, the anxiety diminished, and the countenance more placid, we are sure that the acrimony is partly subdued, and consequently, that the irritation is not so violent ; and therefore we ought, at this period, carefully to examine the excretions, the saliva, urine, and fœces, before we go any farther ; if we find any of them concocted, this is the second sign of true coction, and if the pulse keeps up, we may conclude that Nature is equal to the task, and therefore does not require any brisk cordials ; but if, on the contrary, there should be a visible abatement of the symptoms, with a soft and very small quick pulse, we may infer that Nature begins to sink, and requires a cordial, a glass of wine, or perhaps something more quick, or even a blister : by these, languid Nature may be stimulated to an effectual exertion, and the fermentation kept up, to use
Sydenham's

Sydenham's words, till coction is performed. One sure sign of coction is a craving for food, which is, in this situation, the best cordial, and must be granted, but the quantity ought to be regulated; too little is the safe side to err on, for, in such cases, I frequently see the appetite better than the digestion.

But even when certain signs of coction have appeared, the victory is not complete, as some have rashly imagined; two other operations still remain, one to ripen the concocted matter for expulsion, and the other actually to expel it, as has been said in another place. Mere signs of coction, therefore, do by no means justify the forcing any evacuation violently; it is enough to keep the passages open, and wait patiently till Nature brings the colluvies to them, and gives signs of turgidity. Now, the certain sign of turgid matter after coction is, that sensation which we distinguish by the name of a chilly fit. After this, the pulse will rise and the heat increase; nothing ought then to be attempted but dilution, which Nature commonly points out by an increase of thirst. This state frequently lasts a considerable time, but gives no cause for fear: some evacuation will certainly follow, and that evacuation, whether it be sweat, saliva, urine, stools, or eruption, will infallibly prove,
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in some measure, critical; it is an *evacuation* of the morbid matter concocted and turgid, and therefore must not be checked, but rather gently promoted. In this case, the fever will greatly remit, intermit, or go quite off: and this I offer not as hypothesis, but certain truth, having long and carefully considered the subject, and found my principles confirmed, without exception, by experience. The days of index, and the days of crisis, generally speaking, agree with the observations of the ancients in this fever. I lately attended a gentleman, S. H. who, after some troublesome *terrentia* for three days, was seized with a violent cold fit, rigour, and the other symptoms of this fever, insomuch that he did not remember his being largely blooded the first day; after the vomit he began to recollect himself; then he was purged, and his body was kept open the third and fourth days, when he had a sense of coldness in his legs, and some signs of coction; after which the fever increased, but not so much as to require more bleeding; then it seemed to be at a stand till the seventh day, when a much more considerable chilliness came on, and was succeeded by a perfect crisis, and opening a way for all the secretions and excretions. After this there remained only a little spitting of concocted matter, a slight cough,

cough, and an open body for some days, with the kindly, natural night sweats; but no quick pulse, or other febrile symptom, and the urine became less and less loaded every day.

Thus far the *synochus non putris* may be said to resemble the simple inflammatory fever, with this difference only, that in the *synochus* the bowels are always loaded, and a greater part of the morbid colluvies goes off by them than in the ardent fever; just as Hippocrates has said: "There is a season (suppose from July to November) when the *causa irritans* seems all below the diaphragm; then it mounts upwards, (suppose from November to March) after which it again begins to descend." But in the going off there is a most considerable difference; for the ardent fever, when it terminates by resolution, terminates completely all at once, if not prevented by some neglect or bad practice; whereas repeated crises are required to bring the *synochus* to a perfect conclusion; the chilliness, heat, and evacuation must be repeated again and again; so that, although it does not always deserve the name of a true ague, yet it resembles one so much throughout, that I am not surprised the ancients frequently called it *tritæos* and *hemitritæos*; a double tertian, or protracted quotidian ague: and Sydenham absolutely thought

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them so similar, that he says they are of the same nature; and indeed, they are so much blended together, and so frequently productive of each other, that his observation seems to be well-founded: by this he regulated his practice in spring agues, and never stopt them till the time consumed in the febrile paroxysms, exclusive of intermissions, taken together, amounted to two hundred and thirty-six hours, which make fourteen days, the space of time he had found necessary to concoct this particular lentor by a continual fever; and during this time the ague generally cures itself, if left to Nature, and proper regimen.

When the *synochus non putris* comes to long remissions, and the exacerbations begin by a sense of cold and chilliness in the evening, with night sweats, morning sleeps, and appetite at noon, good spirits, and increase of strength, so as to sit up most part of the day, we have reason to be thankful, the danger is over, the whole will soon go off by longer and longer remissions, or a well-formed spring ague.

If, during these remissions, and before there is perfect sediment in the water, I have endeavoured to prevent the return of the paroxysm, by purging and low living, or rather an antiphlogistic regimen; the consequence has always been, great loss of strength, crude collections, or a return
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of the continual nonremitting fever : but if I have had patience till there was a perfect sediment in the water, then rhubarb purges agreed well with the patient, and rather increased the appetite. If, in like circumstances, I endeavour to prevent the return of the paroxysms, by giving bark in the intervals, I seldom gain any advantage. Sometimes the remission is lost, and the excretions become more crude : sometimes the febrile tension goes off, the appetite increases, the spirits rise, and all seems to go on successfully for five or six days ; then the mouth begins to become dry, the urine crude, the appetite falls off, the sleep is interrupted, and there comes on symptoms of some disagreeable obstruction which requires skill and time to remove. In looking over many cases in which this practice had been tried, I was amazed to find so few perfect recoveries among them. In the true *synochus non putris*, I do not give the bark at all as a febrifuge, because I find the fever is necessary to complete the cure ; but as a tonic medicine, in cases of great weakness, I know none so good : it is the best cordial drug upon earth, and the least heating ; in a small quantity it mends the appetite, and adds to the strength of the pulse, without increasing the quickness of it : the best preparation of it is the plain powder.

When this fever comes to intermit, with real concocted excretions, and absence of fever in the intervals, evacuations are not so pernicious; on the contrary, we frequently meet with turgid matter in the stomach or bowels, which may require the aid of art; after which the diet must still be mended, to which must be added air and exercise, to fortify the habit, according to the strength of the sick; and cold bathing in the time of intervals agrees very well with some people. I now attend a young man at Mr. C.'s who consulted me two years ago for scrophulous tumours of a vast size and great hardness all round the neck, and glands of the throat and under-jaw. After some general evacuations, I put him on a course of *sal. polychrest* and burnt sponge, for a considerable time. When that had no effect, I gave the *extr. cicut.* in a considerable quantity: while he was taking this medicine, two of the tumors came to a kind of suppuration, and being long poulticed, at last broke; after which the orifices were dilated, and dressed by a surgeon for many weeks; each of them healed up to a small aperture, from which there flowed a glary matter; but still the bottoms of them were large and hard, and the parotid and submaxillary glands remained as before. Last summer he was sent to drink and bathe in the sea-water for
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six weeks, which reduced his flesh, and seemed to heal up the two sores. After his return he took a course of bark; but all to no purpose. In the month of March last, he was taken with a *synochus non putris*, which terminated in a well-formed double tertian; and after some days in a regular single tertian; then the tumors began to subside visibly after every fit. He was kept on the antiseptic diet, and *sal. polychrest*, to the beginning of June, when all the tumors were quite gone; but his colour and flesh were also much diminished, although he did his business in the warehouse every day. Then he began an infusion of the chamomile flowers by way of bitters, eat animal food, and drank wine; every morning early, he went into the cold bath, and recovered his looks and spirits; but still the ague went on regularly. Upon the first day of July he took the bark in a large quantity between the fits; but the ague did not yield easily; for I was obliged to increase the quantity, and add the chamomile flowers in powders, with about sixty drops a day of the *elix. vitr. acid.* and to continue the cordial diet and cold bathing. At present I think he is radically cured of the scrophula, and the ague is quite stopt.

With regard to spring agues in general, my idea agrees so exactly with Syden-

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ham's, that I will here faithfully copy his words, cap. v. art. 11. " I have already
 " observed, that vernal intermittents seldom last long, and always prove salutary; so that the aged and infirm can
 " scarce be endangered by them, without very unskilful treatment." Again, art. 16. " I have always been of opinion, that
 " vernal intermittents might be wholly left to Nature, having never known a
 " single person destroyed by them; and, on the contrary, have observed, that the
 " attempting their cure improperly, tended only to render them more obstinate."
 He might have added, and of evil consequence, as was the case of Dr. W. G. who stopt a single tertian contrary to my opinion and advice; the bad effects of which he suffered many years. But to go on with Sydenham: art. 27. " These particulars being laid down, which I conceive
 " are rational and well-grounded, it will not appear strange, that I propose no
 " other method of cure in the intermittents than seems necessary to be used in these
 " continued fevers, to finish the business of their despumation, by means of an
 " effervescence limited to a fixed time, although they may differ in the manner
 " of doing it."

And I can affirm from experience, that the same method of treating, recommended
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in the *synochus non putris*, will equally succeed in such agues as intermit from the first commencement, or soon after. There are few spring agues thus treated, that will run longer than nine fits: when they do, I give the infusion of chamomile flowers, with *sal. polychrest.* between the fits, and take care to keep the stomach clear, *pro re nata*. If the sweating is over profuse, I add the *elix. vitr.* to the infusion; but if it is deficient, I use the crude *sal. ammoniac*, instead of the *polychrest.*: I forbid nothing in the diet but salted, and hung or smoked meat, fat and butter: I allow small beer, and some glasses of wine, and recommend air and exercise, and sometimes cold bathing, according to the custom of the ancients. It must, however, be confessed, that some people have such weak solids, that they cannot bear the shock of so many fits, and our weather is frequently so damp at this season, that there may be a necessity of stopping even a vernal intermittent, and then we are obliged to have recourse to cordials, of which the bark is the best.

Most of the other diseases of this season are curable by the same method, with a little alteration only, according to the seat of the distemper; such as the diarrhoea, dysentery, cholic, and jaundice, except the hemicrania, which is also a disease more frequent in spring than in any other season

of the year, although I have seen it at all seasons.

It resembles the *synochus non putris* in some respects; for it is always accompanied with collections of crude and turgid matter in the stomach, and cannot easily be cured without vomits; after which it comes to a regular intermission, and may always be cured by the antispasmodics; the choice of which ought to depend upon the season of the year, and the epidemic constitution with which it is complicated. Care, however, must be taken, to distinguish it from the other headaches arising from other causes, but resembling it in symptoms; such as from an incongruity of the solids, the hysteric disease, remitting and intermitting fevers, the scurvy, the lues, and the like.

The true intermitting hemicrania is attended with no other fever than what arises from the violence of the pain, than which none is more intolerable: it is commonly confined to one side of the face and head, is not exasperated nor relieved by heat; frequently affects the eyes, and brings on a prodigious inflammation and tenderness in them, which goes off soon after the pain of the face is removed. The history of the disease will appear better from the cases, than from any other account which can be given of it. In the mean time, I have observed in general, that when I began
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the cure by bleeding, it frequently gave relief in spring, but never in autumn: a vomit always moderated the succeeding fit; a purge increased the succeeding fit, unless an anodyne was given after it. After these evacuations, I have sometimes succeeded in harvest by giving an infusion of chamomile flowers, with *elix. vitriol.* but never in spring, although I have tried it often. When the chamomile and vitriol have failed me in harvest, I have, for the most part, succeeded with the bark; but this also has often failed me in spring, although I have given it in a large quantity between the fits, and persisted in it a considerable time. Leaches on the temples, and blisters behind the ears, frequently give relief; but never cure the disease. Strong and fermented liquors always exasperate the pain; yet the lean of meat is the best diet. Roots and greens, however, do no harm. The following electuary has always succeeded in the great number of cases in which I have ordered it. Care, however, must be taken, to vary the ingredients, or the proportion of them, according to the season of the year, the weather, age, habit, and other circumstances of the sick, as will appear by the following cases.

R Pulv. rad. valerian. sylvest. ʒi.

Cort. peruv. opt. ʒss.

Theriac. ʒij.

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Sal.

*Sal. absynth. ʒi.**Rhei elect. ʒi.**Syr. croc. q. s. f. electuar.*

I commonly order a bolus to be taken every three hours day and night till the pain ceases; but I have often seen the whole quantity taken in one day, two-thirds the next day, one half the third day, and so less and less till it was wholly left off; without which, relapses are very common.

CASE I.

A gentleman, aged about forty-six, Mr. J. D. strong and healthy in every respect, except that he was subject to a regular fit of the gout in the month of February, took in the month of May, a course of the tin powders for the flat worm, and some doses of jalap after them. The worm was voided in different pieces, and he remained well to the month of September following, when he was waked in the night by a pain in the prominent part of the cheek; this pain, night after night, increased gradually over all that side of the face and head in so violent a degree, as to render him almost distracted; it held him for many hours, and seemed to increase every night, both in violence and duration; after evacuating the

the bowels, he took, in one day, an ounce of valerian, and half an ounce of bark made into an electuary: he was much easier the next night: however, he took the same quantity the day following, which removed the pain altogether; he then gradually diminished the quantity, as above, and got quite well. He went down to his country house, and got wet by walking in the rain; after which he was taken with a diarrhoea that lasted eight days, and for which he was vomited and purged: he now found the headach returning gradually, and at last it came to its former degree of pain, but did not continue quite so long; he again took the electuary as formerly; it had no great effect the first day; then the quantity of the bark was increased, but still the pain continued till the theriac was added, and then the whole disease was soon cured. Might not this, with great propriety, be called an ague in the head?

CASE II.

Another gentleman more advanced in life, P. O. who also was gouty, and had been subject to the gravel, of a gross and phlegmatic constitution; after a spring gout and long confinement, had a severe fit of the gravel in his kidneys, with a considerable degree of fever; he was blooded

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and

and treated in the antiphlogistic way for seven days, during which time his body was kept open with clysters, and soft oily purgatives; he drank much lintseed and marshmallow tea, with *spir. nitr. dulc.* was frequently bathed and fomented, till all the gravel came away gradually. Soon after he was taken with a most excruciating hemicrania, for which he was vomited with ipecacuan, worked off with a bitter infusion, to which some flowers of mustard seed were added; he was ordered juniper tea for common drink, sweetened with honey, and the powder of valerian with a small proportion of bark, but a good deal of the *sal. absynth.* in an electuary, which cured him very soon.

C A S E III.

In the time when the spring fluxes were very common here, a young lady of a delicate make, and subject to nervous complaints, was seized with a true hemicrania; she was vomited with ipecacuan in powder, and purged with rhubarb and cremor tartar, equal parts; after which she took an electuary of powder of valerian, with a little rhubarb, and after each dose four spoonfulls of *julep. e camphor.* with some drops of the *spir. val. aromat.* which cured her immediately.

None

None of these have had any return of this complaint ever since, although these cases happened some years ago. I could give a great many such cases, but these may serve to explain the nature of the complaint, the method of cure, and what I mean by varying the ingredients, and the proportion of them, according to the circumstances. The great matter, however, is, to ascertain the disease, and distinguish it from every other that resembles it in symptoms, which is sometimes difficult.

Mr. Barry, the apothecary, sent for me, many years ago, to see a gentleman who was said to be ill of an hemicrania, and had a great deal of advice for it to no purpose. I discovered that it was the yaws by three circumstances: first, The pain was all over that part of the head which is covered by the hat: secondly, It was worst when he was warm in bed, and did not give him much trouble if he did not go to bed: thirdly, There were, upon the head and shoulders, some eruptions of the colour of rusty iron, something like a small unripe raspberry, which were said to be the consequence of the blisters that had been applied upon these parts; but drinking a strong decoction of the woods, and sweating in the bagnio, soon demonstrated what they were, and he was cured accordingly.

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Some years after, the same apothecary sent for me to see another young gentleman, who had been ill of a lues venerea, and salivated by an eminent surgeon for three weeks; after which he had taken several doses of physic, and was dismissed. In a short time he was seized with a periodical headach to a most violent degree, which was suspected to be a remain of the lues; but upon examination, I found that the pain returned regularly at seven in the evening, was confined to one side of the head only; both eyes indeed were inflamed, but chiefly that of the affected side: accordingly, I ordered him to take a camphor bolus that evening with some opium, which made the fit much more moderate. The next morning, as soon as the pain was pretty well over, he took a vomit, and immediately after began the electuary, and the pain never returned again: the inflammation of the eyes went off very soon after; there came out a great many heats and pimples on his skin, for which he drank forty bottles of the decoction of the sarfa, and was quite recovered.

A few years ago, I was concerned with Mr. Johnston of Bread Street Hill, in a very perplexing case of the hemicrania: a young woman, formerly very healthy, was delivered of a diseased child in the spring, which soon died; so that the mother's milk
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was suffered to go away; she consulted a surgeon about a surfeit, (as she called it) but he easily discovered it to be a *lues venerea*; she was put on a course of mercurials; after eight days she was seized with a most dreadful pain in her head, and inflammation in both eyes; this pain indeed remitted, but never went quite off; I found the pulse quick, and rather hard, though small; her tongue loaded, breath rank, urine muddy and crude, skin very hot, a continual clammy sweat about her neck and breast, body costive, and some degree of thirst: I ordered her body to be opened immediately with a purging clyster, and that she should take, by a tea-spoonful frequently, a linctus made of equal parts, of manna, tamarinds, and honey, drinking plenty of barley-water, and a draught with *lac. sulphur.* night and morning. She continued this prescription four days, during which time she went to stool three or four times every day: her mouth became clean and moist, the pulse slow and regular, and the pain in the head intermitted, with a concocted sediment in the water during the intervals. She was ordered the bark, and *rad. valer. pptæ.* with a little *sal. absynth.* and *theriac.* after which the pain went off in one night: by the use of the same electuary she recovered her flesh and spirits; her appetite returned, the eyes also became well; but
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the lues remained, and the symptoms increased. For this the solution of the sublimated was given with a decoction of the farfa; it seemed to agree for five days, but a purging with gripes came on the sixth day, and the very next day the megrim and inflammation of the eyes returned: she was then purged with rhubarb and magnesia, and the next night took the electuary as at first: the inflammation of the eyes and megrim went off in a few days, and she remained free from them for three weeks; but the lues increased. I then ordered a small quantity of the *calx. merc.* to be added to the electuary of bark and valerian; this seemed to agree for ten days, when the same purging returned again: to stop which *theriac* was added; but all would not do; the megrim returned, and we were obliged to give up all mercurials before we could stop it. I advised her going into the country, as the weather was then very hot in town, and to neglect the lues, except just to keep it under by the decoction. She went to Sydenham, and was very well for a week; but she was advised to drink these waters for her surfeit; the waters purged her for three or four days successively, and the megrim, &c. returned, but were soon carried off by the electuary. I then advised her again to take no other medicine than the

the decoction, and to wait till the settled frost should set in; during which season, as there seldom are any putrid diseases, I expected to remove the lues by unction and sweating in the bagnio: in the mean time, the ulcers were dressed with equal parts of a mild digestive, and *ung. cærul.* Accordingly, in the beginning of December following, she was brought gradually into a gentle salivation, and was quite cured without any cross accident. She then drank the decoction of the *sarsa* till she recovered colour, flesh, and appetite.

OF THE
PUTRID CONSTITUTION.

THERE seems to exist an humour of a pale yellow colour, floating in the blood of every healthy animal, from whence the bile or gall is chiefly fabricated, and the principal organ, destined by Nature for this operation, is the liver. In a sound state, this humour is not acrid, even after it has been secreted by the liver, and passes into the *ductus hepaticus*, as we know by tasting it; but when collected in the gall bladder, it becomes very acrid; and the more so, the longer it remains there. While this humour floats in the blood, it may be distinguished by the name of *succus biliaris*; when secreted and passing through the hepatic duct, it is called *bilis hepatica*; after it has been collected in the gall bladder, it is called *bilis cystica*, or *fellia*, or gall.

So long as the *succus biliaris* retains its proper qualities, and is in due quantity, it continues to be a most useful ingredient in

the composition of our humours; but when it errs in either, it becomes morbid, and the origin of various diseases; to which different names have been given, viz. when the *succus biliaris* is redundant, thin, and acrid, it gives rise to the putrid diathesis: when redundant, thick, and acrid, it occasions that diathesis commonly called bilious; but when very viscous, and dark yellow coloured, it is called *succus atrabiliaris*, as yet floating in the blood, and gives rise to the *peripneumonia notha*: but when the *succus atrabiliaris* is separated from the blood, and deposited or forming a fluxion on the bowels, it may be called, by way of distinction, *humor melancholicus*; because it is the most common cause of the *melancholia*, the *morbus hypochondriacus*, and *hystericus cum materia*: when these obstructions resolve, the matter discharged resembles tar, and was, for that reason, called μελαινα χολη, or *atrabilis*.

These are the alterations which this *succus biliaris* undergoes every summer and harvest in this country; and we are now about to examine the diseases produced by them, as we actually find them, regularly and invariably, with the consequences arising from neglect, or the different modes adopted by practitioners, in treating each of them; in order to discover their nature,

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nature, and the best manner of treating them.

In a matter of such importance, all theory or conjecture should be avoided; practice ought not to be regulated by any hypothesis, or experiment made out of the body, nor any thing admitted but facts; which being ascertained, there is no harm in subjoining the *rationale* to confirm the judgment and assist the memory: for these reasons, I have ventured to make a few digressions, in order the better to explain my ideas.

The *humor biliaris* is naturally very thin and penetrating, as we see by its frequently staining the whites of the eyes; and therefore it is secreted, in some degree, by many other glands besides the liver; nor is there a more certain indication of the redundancy of this humour floating in the blood, than the yellow colour it communicates to the urine, which goes off as soon as the whole, or greatest part is evacuated: indeed, when the lentor is deposited in the large bowels, and consequently out of the common course of circulation, the urine loses the yellow colour, and sometimes becomes as pale as usual in good health.

For the most part, however, one may conclude, that every species of diet which
renders

renders the urine yellow, and acrid, increases the acrimony of the *humor bilarius*; and, on the contrary, every species of diet which renders the urine pale and mild, also diminishes or corrects the acrimony of this humour.

A foul mouth and rank breath are certain signs of a redundancy and acrimony of the *humor bilarius*; and therefore, every species of diet which cleans the mouth, and renders the breath sweet, may be supposed to correct these errors of this humour; and on the contrary, whatever fouls the mouth, and makes the breath rank, may reasonably be supposed to exasperate and increase them, and ought therefore to be avoided till these symptoms are removed; after which indeed the diet may be altered, lest by persisting too long in the free and constant use of the corrigent diet, we should run into the other extreme, and render the bile too inert for the purpose of chyli-fication.

When one lives on seeds, fruit, and vegetables, the body is open; the urine is pale and mild; and the more so, if he drinks only pure water: honey, and renette whey have these effects to a great degree: on the contrary, if one lives much on animal food, the urine becomes rank and high-coloured, the mouth foul, and the breath offensive: all these phenomena are

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increased by drinking spirituous or fermented liquors; nay, beer has this effect more than wine; spices of all kinds, and the use of the plants called *alkaline*, most of all: to which may be added colworts, particularly cabbages, asparagus, and artichokes. Opium gives a high colour to the urine, and increases the acrimony of it, makes the mouth foul, the skin hot, and the body costive, beyond what could be easily imagined, or expected from the smallness of the quantity given at any time; and the same is true of blisters, and most of the alkaline or putrid substances.

These simple observations may assist in directing the proper diet, during the diseases which arise from this species of morbid lentor, and may be of great consequence in conducting them; nay, the purging drugs which stain the urine very much, are found, by experience, to exasperate rather than correct the acrimony of the *humor bilarius*, and all the class of bitters; for which reason, perhaps, we never find them succeed till the acrid lentor is corrected or expelled; but in cases of inert bile, they have an admirable effect.

Having thus given a general idea of this class of diseases, I now proceed to consider them one by one, in that order in which they generally succeed each other regularly, and nearly, *ceteris paribus*, according

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the season of the year. I do not propose to enter into a minute detail of every alteration and phenomenon produced by bad practice in each of them, because that would be an endless labour; I shall therefore endeavour to confine myself to the history of the disease itself, and to its natural progress when uninterrupted, together with what I have been able to observe regarding the method of treating it to advantage: I shall only mention bad practice by the bye, as I purpose to explain the genius of the disease, and to shew the cause of that infinite variety of symptoms which have been seen in these diseases, and which are apt to perplex the young practitioner, although in reality many of them are the effects of drugs and regimen, and ought not to be accounted the true specific symptoms of the disease: they are, in reality, not to be met with when it is properly treated.

OF THE
SYNOCHUS PUTRIS.

HAVING given an idea of the epidemic constitution, which reigns at that season of the year which Sydenham calls between spring and summer, I now proceed to consider what happens during the height of summer, when the solids are much relaxed, and the blood more dissolved than in any other season, particularly if the weather is rainy and the air damp. In the *synochus non putris*, the solids have not as yet lost their tone, nor the blood its texture. Hence coction and crisis, according to Hippocrates; "*Pepasmi causa effectrix est partium solidarum vite tale principium, et vivifica vis quæ manat e corde.*" And Galen, in his Comment. 2. upon Lib. i. *Epid. apud Lacunam*, "*Porro concoctionem humorum fieri a solidis, corporis sanis, et esse opus naturæ.*" But when the proper force of the solids was wanting, or the texture of the blood destroyed, then there was no perfect

perfect coction. The idea of Hippocrates concerning this matter, is expressed in the following manner: "*Febris est tanquam*
" abcessus generalis venarum, loco tantum
" differens; quod pus est extra vasa, idem
" est hypostasis in vasis." When the pus, therefore, was laudable in an ulcer, he concluded that the solids and fluids were in good order; but, on the contrary, if the discharge from the ulcer was bad, he concluded that the blood was dissolved, or the solids relaxed, or that there was some want of that *vis vivifica quæ manat e corde*. In like manner, if the *hypostasis* was laudable in complaints attended with a fever, he concluded that the fluids and solids were in good order; but when the *hypostasis* was not laudable, then he called the fever putrid: "*Si enim vinceret aut insignis*
" humoris esset putredo, pus non fieret lau-
" dabile, nec notas proprias habet:" which Galen, in his Comment. explains thus; "*Pus,*" says he, "*is the creature of good*
" blood and perfect coction; whereas sanies
" and ichor are the creatures of bad blood
" and putrefaction."

Their idea of putrefaction seems, therefore, to have been a state of the solids and fluids, most opposite to an inflammatory state: when the solids were sound, and the texture of the blood good, (or partly fizy) they observed that an ulcer yielded laudable

pus, and incarnation succeeded well; but when the solids were weak, and the blood dissolved, then they observed that an ulcer yielded only a thin bloody sanies, or sharp watery ichor, so that incarnation did not go on well; that the ulcer was foul, festered, foetid, and spreading.

In like manner, when by any accident a fever was produced in a healthy, sound constitution, with elastic solids, and blood of a strong texture, the fever was regular, and of short duration; the coction was perfect, and the *hypostasis* laudable.

But if the same fever was produced in a bad constitution, with weak solids, dissolved or perhaps acrid blood, then they observed that the fever was anomalous, tedious, and ill conditioned; the coction was partial and ineffectual; and the *hypostasis* was not laudable. This idea of putrid fevers, according to the doctrine of Hippocrates and his followers, did not arise from the cause immediately producing the fever, so much as from the condition of the constitution in which the fever was produced: and Galen, in his *Method. Medend.* lib. ix. cap. 3. seems to imagine, that there could be no putrid fever, unless such a state of the body preceded; "*Nec continua excitetur febris infrigida etate, nec in frigido corporis temperamento, sive ab initio fuerit, sive nunc*" "frigidum"

" *frigidum fuerit factum: nec in gracilibus,*
 " *vel qui raro sunt corporis habitu.*"

Some years ago, I was sent for to see Miss Cope, a young lady of ten years of age, at the house of Mr. Johnson in Hummerton: Mr. Fisher, the apothecary, told me, that she had been then three days ill of a fever, for which she had taken the saline draughts, with some *confect. cardiac.* and did not seem to have any violent, bad symptom: the reason of sending for me was to try if I could stop a bleeding at the mouth and nose, which had defeated every thing that had been tried; and by the quantity of the towels which were stained, one would have imagined that much blood had been lost. Upon examining the pulse, I found it quick, rather full, but not hard; the skin was very hot, and almost covered with petechial spots, some as broad as a crown-piece, of an irregular shape, others no bigger than flea-bites; her urine was jumentosa, her tongue foul, and breath rank: I ordered her to be blood-ed in my presence; she bore the loss of eight ounces before the pulse subsided; I then directed a purging clyster, which soon procured a large discharge, as is common when bleeding has preceded; she was ordered to drink plentifully of barley-water acidulated with *sp. sulph.* to be quiet, to be very thinly covered, and placed in a

current of air. I considered this case to be a redundancy of dissolved and acrid blood, in the middle of summer, and height of the putrid constitution, in a young lusty girl of a very soft texture. I thought it vain to expect a regular fever and crisis, and therefore ordered a small decoction of the bark in draughts, with *elixir vitriol*, and a little *diacodium*, and to continue the former drink. Here I ordered the bark, not as a febrifuge, but as a tonic medicine, to restore the tone of the fibres and texture of the blood; by which I expected Nature might be enabled to concoct the morbid matter. Next morning I found, that the blood which had been taken away the preceding day was much dissolved, the bleeding at the nose stopped, the pulse more moderate, the thirst abated, and many of the livid spots changed into a yellowish brown; the urine was muddy, of a mixed colour, and in a considerable quantity; I ordered the drink and draughts to be continued, and that she should eat strawberries, with a cup of butter-milk, morning, noon, and night: by these means the spots diminished every day; her body kept regularly open, she began to get some sleep, and her strength increased. Upon the ninth day she went into an universal critical sweat; after which she had three large, foetid, blackish stools, and the fever left

left her. This seems to agree with what Galen has said, *De Februm Differ.* lib. i. cap. 7. "*Atque hæc putredo non simpliciter putredo est, sed etiam aliquid concoctionis habet: manente enim adhuc concoquendi facultate vasorum, putrescens tunc humor ad talem alterationem deducitur.*" She was then put on a diet of butter-milk, fruit, bread, rice, and barley, continued the bark and vitriol in a small quantity, and after some weeks, was put in the cold bath every morning for a considerable time: after some weeks, however, this regimen was neglected; she had a great appetite, and the people with whom she was boarded, indulged her in every thing she chose to eat; the cold bathing also was neglected; in consequence of which the blue spots returned, but without fever: I again put her on the former regimen, and she recovered in the space of six weeks.

This case explains the nature of a putrid fever while single, and unmixed with any other acrimony, except the *humor bilious* a little exalted: but we frequently meet with a putrid fever complicated with some other distemper, as was the case with this young lady. In about a year afterwards, the mother resolved to have all her children inoculated; but I objected to the inoculation of my patient, whose constitution seemed very unfavourable for this
I operation;

operation ; however, after many days I yielded to the importunities of the mother and grandmother, upon condition that the girl should be confined strictly to a regimen for a considerable time, when I hoped that her health might be quite confirmed ; and indeed so it was to all appearance, and she was inoculated with the other children, by Mr. Hayward, surgeon at Hackney : the other children went on in the usual way, and soon got well ; but on the fifth day after the operation, the scratches on Miss Cope's arms began to discharge a bloody sanies, then became blue, and swelled all round : on the seventh day a fever came on, with all the symptoms of the first petechial fever, except the bleeding at the nose : the former regimen and medicines were ordered, and on the tenth day the small-pox appeared very distinct, and seemingly mild ; but most of them became first purple and then black ; however, the fever evidently abated, the patient's strength returned ; she sat up all day, and was able to walk a little in the garden : on the eighteenth day from the operation, the small-pox were dried, and she was well, except her arms, on which were formed two foul ulcers that could not be healed for many weeks : she has been kept nearly to the same regimen
ever

ever since, and has continued in perfect health.

Whoever shall read Sydenham carefully, upon what he calls the variolous fever, will find, that he describes the putrid constitution, at that time epidemic, and afterwards the same fever with the variolous contagion superadded. When I consider Sydenham's epidemics, I find that the succession of the fevers runs thus, viz. in the early spring, and during the north and north-east winds, the pituite collected in the bowels, produced a species of inflammatory fever, which, after proper bleeding and clearing the first passages, formed into a regular (*homotonos*) remitting fever, and was judged critically, or went into an harmless intermittent: that the inflammation gradually diminished, and that less bleeding was necessary, as the warmth of the season advanced: that after the winds came from the south and west, the season became warm, and the weather rainy and damp, (in the month of July) then the same colluvies produced a putrid, petechial fever, which did not come to regular coction and crisis as the former, but was lingering and anomalous, (*epacmaistica, anabatica vel paracmaistica*) if the morbid matter was not evacuated in the very beginning, both by vomiting and purging.

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That in the years 1667, 1668, 1669, this putrid constitution was complicated with the variolous contagion, and so together produced the purple small-pox. Upon comparing these two fevers, the *synochus non putris* and *putris* together, he found it necessary to vary his practice: in the *synochus non putris*, towards the conclusion of the fever, he talks of strong beer, warm cordials, and stimulating medicines, to forward the suppuration, and complete the crisis; but says, *ann.* 1667, &c. art. 6. "In
 " this kind of fever (*synochus putris*) we
 " meet with no such gross matter requiring
 " digestion before it can be expelled, as in
 " the intermitting fever above described;
 " so it is a fruitless endeavour to promote
 " the ebullition, in order to procure this
 " kind of digestion: on the contrary, this
 " procedure endangers the increasing a
 " disease, the essence of which consists in
 " a very violent inflammation; and must
 " be the more improper here, because Na-
 " ture has appointed no evacuation for this
 " fever by eruptions, as we see in pesti-
 " lential fevers, and the small-pox, though
 " in other respects it resembles the latter.
 " Hence it follows, that the whole of the
 " cure necessarily consists in checking the
 " inflammation, and in cooling remedies." What his cooling remedies were, he explains in art. 7. not nitre, saline draughts,
 and

and such remedies as dissolve the blood; but fruit, and the acid of lemons added to the sallads of the season: I dare say he directed to edulcorate the drink and diet with the syrup of lemons, at the same time that he forbid all kinds of animal food, even chicken broth.

The more I study this great man, the more I admire him! In the *synochus non putris*, where there might be fizy blood and viscid pituite, he does not recommend the rough acids that coagulate the juices; I dare say he would have made no objection to the neutral salts, milder subacids, ripe fruit, whey, and the like; but when he comes to the dissolved state of the blood, he orders the rougher acids of lemons, winter-apples, or quinces: and afterwards, in July 6, 1675, in a case of great colliquation of the blood, (putrefaction) he was obliged to have recourse to the mineral acids of the rougher kind: then he proceeds, art. 8. l. c. to give that excellent advice of taking the sick out of bed, shifting them, and exposing them to the free air: and, lastly, art. 9. he vindicates this practice both from reason and infallible experience. Now, if Sydenham's practice is compared with what Hippocrates has said of the fever which he calls *tiphus*, (*De internis Affect. cap. 41.*) it will be seen how nearly these two great men agreed.

agreed. This fever, (says Hippocrates) raged in summer during the dog-days, was attended with a biting (mordax) heat in the flesh, loss of strength, inability of moving, dejection of spirits, pains of the belly, fœtid excrements, arising from the absorption of acrid bile, rendered rank by the heat of the season, and a putrid dissolved state of the humours; which he proposes to cure by the free use of cold drink, acid white wine diluted, plain austere red wine, and the application of sponges dipped in cold water.

In the year 1729, in the month of July, Huxham (then a young practitioner) met with this fever at Plymouth, (*De Aere & Morb. Epid.* p. 33, 34.) “ It chiefly
 “ attacked children, women, and weak
 “ people; it affected the head, stomach,
 “ and loins, as if the small-pox was
 “ coming on, attended with an oppression
 “ on the breast, sighing, and great faint-
 “ ness: the urine mostly crude, and let fall
 “ a brany sediment; the blood taken away
 “ was not viscid; the tongue was not very
 “ dry, but appeared to be covered with a
 “ kind of viscous brownish mucus: towards
 “ the declension of the distemper, a loose-
 “ ness, or sometimes a dysentery, (especi-
 “ ally if a vomit had been omitted in the
 “ beginning) became very immoderate,
 “ and even proved fatal to some; the
 “ more perfect the sediment in the water,
 “ the

“ the more hopes there were of recovery.” Then he describes his method of treating it, by which it appears, that he was not at that time master of the distemper. He says, “ That bleeding, unless in the beginning, seldom did service ; and that vomits were highly necessary.” So far he was right : but immediately advises “ frequent blisters gradually applied, cardiacs, cinnabar, and opiates.” In all which he was wrong. After this, he says, Sack-“ whey, and diluting, subacid liquors drank plentifully, proved very beneficial.” Here he was again right ; as also, when he says, “ Towards the conclusion of the fever, as soon as the signs of coction appeared, namely the sediment in the water, with a remission of the fever, the bark admirably assisted the cure.”

However, the same Huxham, who, in the year 1729, proposed to cure putrid fevers in the month of July, by a regular succession of blisters, cardiacs, cinnabar, and opiates, lived to correct himself ; and accordingly, in the year 1748, after much experience in putrid cases, makes the following observations : *Putr. et Malig. Fev.* p. 118. “ But I am very certain, that the use of volatile, alcatious salts and spirits, is very hurtful, as they without doubt augment the putrescent state of the humours,

“mours, and act as so many spurrers on to
“swifter destruction.”

Again, as to the use of blisters, “I
“think they are many times improperly
“applied, when the fever runs high, and
“doth not demand a further stimulant:
“besides, the salts of these flies, act as
“alkaline salts, and tend to promote the
“dissolution and putrefaction.” And a
great deal more to this purpose, as will be
seen when we come to treat of the cure of
this fever.

Some people have imagined, from the
use that is made of the word *putrid*, to
distinguish this from all other fevers, that
the humours are previously in a state of
putrefaction, and require such remedies as
are found by experience to prevent meat
from being tainted. This notion gave rise
to the common acceptance of the word
antiseptic, and has been the cause of a
great deal of that bad practice which has
prevailed, ever since the science of chy-
mistry has been preferred to the knowledge
of diseases. But the ancients, who studied
Nature only, and the phænomena observable
in diseases, were led to use the word *putrid*
from three observations; first, That this
fever gave a rank and foetid smell to all
the excrements, sweat, urine, and breath:
secondly, The bodies of such as died of
these fevers, became putrid very soon after
death;

death; hence they inferred, that this state of the humours was more liable to putrefaction than any other: and thirdly, That the blood which was taken from people labouring under these fevers, was covered, when cold, with a greenish film, in colour resembling tainted meat: but we know, that this is the effect, and not the cause of the fever; for, if we examine the blood taken in the very beginning, it is of a bright vermilion colour; when cold, it separates itself, (unless it is very bad indeed) into *crassamentum et serum*, still preserves its brightness, and seems good in every respect, except that it is too tender; as soon as an attempt is made to take up the *crassamentum* out of the *serum*, the finger slips through it, and some of it mixes with, and gives a red colour to the *serum*; whereas blood which has not lost its texture, has a stronger glue in it, as was said in the chapter on inflammation. Dissolved blood will not form a true inflammatory buff; but after the fever has subsided some days, if the blood is examined as it flows, it will be found to have lost some part of its colour; and when it is cold, it will be covered with that greenish film which the ancients took for one sign of putrefaction, though below it will be found black and dissolved.

It would, therefore, seem, that Nature endeavours the same thing, in a healthy
S strong

strong person with elastic vessels and fizy blood, as in a reduced weak person, with relaxed solids and dissolved blood, *i. e.* to expel the morbid matter in both cases by means of a fever; that the fever produces size in both; by the help of which the morbid matter is intangled, if the expression may be allowed. This fever in the strong man, breeds a strong size, equal to any purpose; whereas in the weak man, it breeds a weak size, which cannot do much; only the weak may be able, by length of time, to do what the strong does in a few days.

To explain the nature of the putrid constitution, as we find it yearly and regularly here, it is necessary to divide it: first, There is a dissolved state of the blood, which happens to every one more or less after the beginning of July, and continues till some time in the month of August, *i. e.* till it is superseded by the *cholera morbus*; which, according to Sydenham, (*ann.* 1669, cap. ii. art. 1.) “comes almost as constantly at
 “the close of summer, and towards the
 “beginning of autumn, as swallows in
 “the beginning of summer, and cuckows
 “towards midsummer.”

If nothing is superadded to this dissolution of the blood, the change of season corrects it gradually, and restores the texture of the humours; so that it is not perceived.

ceived. But, secondly, if by accident a fever of any kind is produced during this period, then that fever being complicated with this dissolved state of the blood is always of the putrid kind, except the constitution is uncommonly vigorous and healthy.

Now we find by experience, there are four distinct states of the blood: first, There is a kind of blood in which the red globules are very dense and numerous; the whole blood is very heavy, but the adhesion of the red globules is very slight; so that this fluid may be compared to quick-silver, as wanting a due proportion of size: it is frequently found in young florid people from the age of eighteen to twenty-five, which makes them so liable to hæmorrhages from the nose or lungs, on any slight occasion: secondly, There is the fizy blood of the inflammatory constitution: thirdly, There is a light kind of blood, in which the red globules are but few in number; it abounds with *mucus* and *serum*, as in the leucophlegmatic constitution, and the *glutinosa spontanea*: and, fourthly, There is the dissolved blood of the putrid constitution, which, according to Huxham, is the effect of some acrimony, by which the *copula* of the blood globules is destroyed, the *crassamentum* rendered more tender, and the *serum* turned into a colour more

red than the natural, resembling Burgundy.

Acrimony is of four kinds; the saline acrimony; the rancid acrimony; the putrid acrimony; and that particular species of acrimony peculiar to some animals, plants, or fossils, called poison, under which may be comprehended the morbid *miasmita* of diseases.

The saline acrimony is divided into three; the acid, the alkaline, and the muriatic. The acid is found to coagulate the blood both in and out of the body.

Messrs. Johnston and Jolly, chymists in Fenchurch Street, consulted me about one of their operators, who complained of such a scurvy in his mouth, as made him miserable; all the fat of his body was consumed, his flesh was dry and hard, his tongue was like a piece of raw beef, his gums were red, raw, rough, and unequal; his pulse was slow and regular, but neither soft nor small; his hands and flesh felt cold, and he complained of perpetual chilliness; his belly was rather hard and bulky; his stools were acrid, and he was much troubled with pains in his bowels; he had a kind of false appetite for food, but every thing he eat turned so sour on his stomach, that when any of it was returned by eructation, it took the skin off his throat; his urine was rather of a pale colour, but so sharp that it scalded him; it fermented strongly with,

with, and saturated a considerable quantity of alkaline salts. I ordered him an electuary of rhubarb and magnesia, to be taken frequently through the day so as to purge him; to drink cold chalk-water, and to eat the lean of meat a little tainted, allowed him but very little bread or salt, and forbid him milk, vegetables, and fermented liquors: his blood was of a bright colour, and had no fizy crust upon it; but the *crassamentum* was of a firm texture, and the *serum* quite clear. After some days the belly became soft and reduced in size; upon which he began the following electuary, *cardiac. confect.* and oyster-shell powder, each an ounce, rhubarb and salt of tartar, each one drachm, the bigness of a nutmeg to be taken every six hours; and twice a day he took three spoonfuls of the following mixture, *infus. amar.* six ounces, *tinct. aromat.* one ounce; by these means he got well: he was by profession a chymist, and being thus made acquainted with the nature of his complaint, he varied his diet as he thought proper. Hence I infer, that the acid acrimony does not dissolve the blood, nor render it susceptible of putrefaction, although it should abound to an uncommon degree.

The muriatic acrimony, though commonly understood to be sea-salt only, may be taken to comprehend most of the other neutral salts; such as *nitre* and *sal armoniac.*

niac. which, although they differ in their constituent parts, all agree in this quality of dissolving the blood. They seem, (as Huxham expresses it) to divide and separate the blood globules by their saline spicula; such of them, therefore, as are most easily altered by the power of our vessels, are the least detrimental in this particular: and hence, perhaps, arises some part of their utility in inflammatory disorders. The ancients used sea-water and sea-salt, as a vomit, purge, and alterative, I do not know why they were for many years neglected; however, they are now restored to medicine with great advantage. Sea-salt is supposed to be the principal cause of the sea-scurvy on ship-board, although salt provisions in garrisons have not the same effect to so great a degree, because of the good fresh water on shore. We know that the acid of all these salts taken singly, restores the crases of the blood; so that the dissolving quality seems to reside in the alkaline and bitter part of the composition. When these salts are given with an intention to resolve phlegmons, and to dissolve sily lentors, they are given in their neutral state; but when the intention is to moderate heat, allay ferment, and restore the texture of dissolved blood, then the acid alone answers better, being properly diluted so as to render it grateful to
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the stomach ; and of this the palate of the sick is frequently the best index : hence the salt is antiphlogistic, but the pure acid of it is antiseptic.

Alkaline substances taken into the blood, destroy its texture, and bring on putrid disorders. This has been the received opinion of the most able practitioners universally ; but of late years, some well meaning people have bewildered themselves, by conclusions drawn from experiments made on the flesh of dead animals. They found, for example, that sea-salt, salt-petre, gums, spices, bitters, aromatics, quick lime, and alkaline salts, would embalm animal substances, so as to remain unaltered for a considerable time, and too hastily concluded, that they were proper remedies for diseases, to which, having given the name of putrid, they transferred an idea of putrefaction corresponding with that of dead flesh : it should, however, be considered, that these substances act upon dead flesh only by condensing the solid fibres, exalting the salts and oils, and destroying the soft mucus, which they melt down, and mix with the brine. Such experiments and observations teach us only the art of preserving, pickling, or curing meat, and not removing the diseases of a living body. The only true, medical knowledge of antiseptics is to be attained by investigating

the properties of such substances, as are found by experience to restore the lost tone of the solids, correct the prevailing acrimony, and recover the natural texture of the blood, without exalting the oils and salts, or burning up the natural and essential mucus, by increasing the violence of the heat, or augmenting the cause of it. If, upon this principle, we examine the effect of alkaline substances taken into the blood, we shall find that they dissolve it, and alter the texture of it, so as to make it more susceptible of putrid disorders. If any man will read Lieuwenhok's epistle to Wren, or Arbuthnot on diet, p. 106. or Huxham's account (in his Essay on the Putrid and Dissolved State of the Blood) of the Cornish Gentleman, he will be convinced of this proposition. I could prove it by many instances; but one may suffice.

Colonel M. was of a very vigorous and florid constitution, and much subject to inflammatory disorders: I put him on a course of Blackrie's *lixivium* for a gravelish complaint, in which he persisted during a good part of the summer, and found himself relieved by it; he accidentally caught a little cold which brought on a fever seemingly slight; but in a few days it increased; his blood was quite dissolved, and there came on such sinking and signs of putrefaction as alarmed me: I called in Sir William
Duncan,

Duncan, who evidently saved his life by the force of acids, with a diet of fruit and vegetables long persisted in*. The lime-water is not near so dangerous; Dr. Rutherford of Edinburgh, in one of his clyrical lectures, told us, that he drank the lime-water for many years with impunity, and by it prevented the gravel in the kidneys, to which he was subject as often as he neglected the lime-water.

Dr. Alston did the same for a complaint in his stomach, as I do now for an acid in mine, and it always agrees with me: but these are only particular instances, where the constitution is liable to an acid acrimony. I would not, however, advise even the lime-water to people who are subject to putrid or bilious disorders; such persons never complain of acids in their stomachs, even when they breakfast on hot buttered rolls with tea, eat goosberry fool with milk, drink sour punch, and the like.

The hot spices, seeds, and roots, have been compared to the alkaline salts; for which reason, they are called the alkaline plants, but they are not near so pernicious: their most active parts are contained in their essential oils; so that they resemble

* See a little tract, entitled, *A Disquisition on medicines that dissolve the stone*, printed for Wilson in the Strand, about four years ago.

vegetable sopas in some degree. In the hot countries, however, where they are much used, they are partly corrected by the quantity of fruits and acid liquors drank with them, which passing off continually, washes out a great deal of the acrimony: but still it is observed, that the poorer people of Bengal, who live chiefly on fruit, rice, and milk, are by no means so subject to fevers and dysenteries as the rich and luxurious, who eat curries, and other high ragouts; the truth is, that people who eat much animal food, and take little exercise, require spice and wine to help their digestion. It is remarkable, that the French keep their meat till it is tainted, and then correct it with salts, vegetables, and acids; and that the meat which I saw at Burgundy did not putrify near so soon as it commonly does here: it soon got a greenish crust equally all over it, which seemed to preserve it. When it was dressed, the gravy was very brown, because a part of the solid fibre was dissolved in it, and the lean was very tender. It agreed very well with me who have all my life been subject to acidities; but for the same reason, it would have been too putrid for persons of a different constitution: and I am of opinion, if we were to copy the French in this particular, and to neglect our apartments as much as they do, we should suffer by putrid diseases

frequently much more frequent than at present. Their dry climate does not require apartments so clean, or provisions so fresh, as we do in ours.

The putrid acrimony is peculiar to animal substances; for, although green vegetables, suffered to rot under compression, do at last spoil, so as to yield an alkaline salt, and to ferment with acids, (as we frequently see in hay-ricks) yet it is rather a fixed alkali, arising from burning, than that foetid volatile alkali, which is produced from putrid animal substances. Putrefaction then seems to be in animal, what fermentation is in vegetable substances; an operation by which the constituent parts are separated, the natural viscous destroyed, the oils made thin and rancid, the salts foetid, volatile and alkaline, and the solid fibres dissolved. If I remember right, the best chymists are agreed about these operations of putrefaction; and if so, we may infer, that the *ultimatum* of putrefaction is the production of a foetid, volatile, alkaline salt. Fermentation produces first a sweet liquor, and afterwards an inflammable spirit, which is the *ultimatum* of vinous fermentation, the principle of which is contained in the yeast: then begins another fermentation called the vinegar fermentation, the *ultimatum* of which is, the production of a pure fermented acid. The principle of
vinegar

vinegar fermentation is contained in that cloud which is called mother; because when mixed with the decoction of any plant, it greatly hastens the operation of vinegar making, as yeast does the vinous fermentation; so putrid substances communicate the like taint to all animal substances in contact with them, as the butchers observe in their shops frequently: the very steams arising from them have been observed to breed putrid and malignant fevers, in which the blood has been very much dissolved, as is common after battles and sieges; nay, the same thing has been occasioned by the stench of dead and putrid insects, as Frederick Hoffman has observed. The most common causes, however, of putrid disorders are, a deficiency of the natural secretions and excretions intended to carry off the putrid and recrementitious parts of the humours; eating putrid substances, breathing stagnated air, or air tainted with the effluvia of putrid substances, or with the breath and perspiration of many animals crowded together in a close place. All these unite their powers against seamen; the damp hinders their perspiration, the perpetual motion makes them costive; they sleep in air stagnated and confined, tainted with the steams of bilge-water, and impregnated with the effluvia of each other: if to this we add the scarcity of a good grateful

grateful beverage, roots, and fresh vegetables, the putrid condition of their meat and water, the frequent sudden changes from cold to heat, and from dry to wet, to which they are continually exposed; we may easily account for their scurvy, without laying the whole on the quantity of sea-salt used in their diet. A sea-scurvy, therefore, is a dissolved state of the blood, arising from the mixture of a putrid with a saline acrimony; whereas the common English scurvy is a dissolved state of the blood, arising from the mixture of a putrid with a rancid acrimony: the natural dampness of the air, and the sudden changes of the weather, greatly hinders the perspiration; the constant use of animal food disposes our humours to a degree of putrefaction; we debauch in fat and butter beyond what any stomach can thoroughly digest: these substances, therefore, become rancid, of which we are sometimes sensible before they leave the stomach; but they frequently find their way into the vessels, mix with the blood, are deposited in different parts of our body, and make us fat, and bloated, and big-bellied; then they stagnate and corrupt, breed scurvy, gout, and other diseases; and if, by accident, we should have a fever of any kind, render it extremely dangerous.

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I remember once in consultation, to have heard an opinion, which, though plausible, I think ill-founded : my friend thought, that the operation of digesting animal substances in the stomach, was performed by producing putrefaction, and that of digesting vegetables by fermentation ; that these two operations were opposite and destructive of each other ; and therefore he concluded, that vegetable and animal substances, mixed together in the same stomach, could not be well digested ; so that he who eats meat ought not to eat bread, and *vice versa*. To confute this opinion, there needs no more than the common experience of mankind, who mix animal with vegetable food continually, and yet digest very well, and are well nourished : however, that animal substances are not digested by putrefaction, may be proved by experiment. If a dog be well fed with tainted carrion, and killed an hour afterwards to examine the contents of his stomach, the tainted flesh will be found perfectly freed from all signs of putrefaction, instead of being rendered more putrid by an hour's digestion ; neither is the digestion of vegetables produced by fermentation. If you open a sheep, you will find in the first stomach, the vegetables mixed with slime, soft and macerated ; in the second stomach, after grinding, you will find them in the true state of digestion, but

but without any sign of fermentation: animal digestion, therefore, is an operation equally different from fermentation and putrefaction; nor can either of them take place in a sound stomach, while the digestive faculties are in good order; so that all flatulence, putridity, or acidity in the stomach is a sure sign of a depraved digestion, and, if not speedily rectified, the harbingers of many disorders.

Among the mineral substances which are found to have the greatest effect in dissolving the blood, is mercury; nay, it renders it in some degree putrid, as is evident by the stench of the breath and sweat, and by the colour of the urine, which resembles the *urina jumentosa* of the putrid fevers. I have reason to believe, that the reguline part of antimony has something of the same effect, and therefore, its salutary effect in true putrid fevers, is rather doubtful, unless when it operates as a vomit, or is well corrected.

Many vegetable substances have a very sensible effect in dissolving the blood; such as jalap, aloes, laurel-water, water-hemlock*, and most, if not all of the resinous purgatives. Most of the animal poisons are observed to have this effect to a very

* See Experiments by Dr. Nicholas and Dr. Langrish; Mead on poisons; *Weesper de cicuta aquat.*

great degree ; such as the venom communicated to the blood by the bite of certain animals, insects of various sorts mixed with the food, the stench of dead insects, or infected bodies, or putrid flesh ; but nothing more than the morbid *miasmata* of certain pestilential fevers ; all which has been observed by the best authors on these subjects, viz. *Galen*, lib. i. epist. 1. *De Feb. Differ.* cap. iv. *Forrest. Observ.* lib. iv. observ. 11. and 26. *Hoff. Med. Rat.* tom. i. p. 291. *Stablii Fundament. Chymie*, pars xi. tract. 1. cap. 5.

The meaning of the word *putrid*, applied to diseases then, differs in some degree from the common acceptation of it, when applied to dead bodies, in as much as it arises from a certain morbid disposition of the humours, brought on by various causes ; which state, although it cannot be called truly putrid before death, yet in some cases, approaches it as nearly as is consistent with life. The experience of many ages has ascertained, that this disposition is most frequent during the months of July and August, in this country : there are indeed certain causes which may produce putrid diseases in any season ; such as camps, gaols, hospitals, ships, and besieged towns ; but I mean to confine myself to the fever of that epidemic constitution which comes yearly and regularly, that is, the summer fever

fever of London, as I have seen it for these fifteen years past. But, first, I must congratulate my fellow-citizens, that putrid diseases are not so frequent nor so violent here, as I have seen them in some other great cities, nor even as they have formerly been in this city. It is true, that the people who attend our gaols and hospitals do frequently carry contagion in their cloaths, and may sometimes communicate it; but for the most part, it meets with good rich blood, which is able to resist it. When Erasmus was returned from his expedition into England, he wrote an encomium on the hospitality and great attention shewn him in London, and regrets the calamity to which the inhabitants were at that time exposed, by the regular return of a malignant fever, which began every spring, and raged all summer, and some part of harvest. This fever was most destructive to the poorer sort of people, and owing, as he imagined, to the following causes: first, A scarcity of water; for, says he, there are few conduits nearer than Lamb's, a great way out of town, (*i. e.* Red Lion Street Holbourn) and the river-water being carried on men's backs, is so expensive that the poor people cannot afford enough to clean themselves and their houses. 2dly, Their houses being built of wood, are very cold during the winter, which obliges
T them

them to fill their apartments with straw ; they cannot afford to change the straw often, and therefore it corrupts and becomes very noxious. How much would this good man have been delighted to see the present condition of this city, with all the advantage which Nature and Art can give to so large a place. The *situation* is dry and gravelly, cut by four rivers, Tyburn, Holbourn, Walbrook, and Tower rivers, with a regular descent from each house into one or other of these rivers ; a good sewer under ground, and a free channel above ground to carry off all soil and filth : the sewers are washed twice a day by the tides, and the channels by a continual stream of water, which keeps up a constant motion in the air ; besides, the regular ventilation of the whole city by the ebbing and flowing of the river ; there is a superfluity of water in every house, a constant supply of the best provisions, bread, fruit, and other vegetables ; open air, airy streets, elegant commodious houses, comfortable apartments, and a spirit of cleanliness among all ranks of people, both in their persons, beds, and furniture. If the abuse of eating such quantities of animal fat and butter is excepted, all our diet is antiseptic, and the beverage even of the poorer sort is excellent, *viz.* beer, cyder, and punch : most of our spring waters, which are very numerous,

merous, are impregnated with a nitrous acid, which, although it may disagree with some weak stomachs, is very grateful and salutary to people of a putrid diathesis. These are the reasons why we are less liable to malignant fevers than our predecessors; and, upon a careful review of my journals, I do not meet with the putrid constitution epidemic before the month of July. The malignant fevers which I have seen in May and June, have been rendered such by an unskilful treatment of the *synochus non putris*, except in some particular instances, for which I could account by certain peculiar circumstances. It is, however, true, that with respect to some who had contracted a *synochus non putris* about the end of May, and were treated as above, *i. e.* by bleeding *pro re nata*, a vomit, subacids, neutral salts, common oxymel, and clysters, to the tenth day; then, having had good appearances on the eleventh, were left to Nature and proper diet to the fourteenth, in expectation of a perfect crisis by sweat, &c. which came on and was followed by stools, the crisis has not been perfect, as in the more early season; on the contrary, the pulse has become small and quick, the skin remained hot, the mouth foul, and the urine high coloured, thick, but crude, (like dead strong beer, as Huxham expresses it) the sleep much disturbed, sweats consi-

derable every night, but neither the sweats nor stools beneficial; so that the remissions became shorter. In these instances, the disease evidently resembled the putrid fever, although it had not been such in the beginning, when the blood was fizy; but had changed its type by the duration of the fever, and the warm rainy weather, and southerly winds.

This happened to Mr. Belfon, a young gentleman under my care, upon which I ordered the whole of his drink to be acidulated with the spirit of sulphur; and that after two days, he should take a draught of the decoction of the bark: I also ordered him to eat strawberries, some wine and lemon-juice to be put into all his panada and gruel, which, with whey, was the whole of his diet to the eighteenth day, when some broth with lemon-juice was allowed him at dinner: this fever was judged critical upon the twenty-first day of June. I saw several such at that time, but one example is sufficient.

I was soon afterwards called to see several people who were all seized with an intolerable pain and burning heat in the pit of the stomach, and under the point of the cartilage: some of them had great heat and fever, with a very foul tongue and tension of the belly, pain of the head and loins, loss of strength and appetite, great dejection
of

of spirits; they were very restless, and sweated continually without relief: others had all these symptoms in a less degree, but without great quickness of pulse, or burning heat: those symptoms, however, were soon superadded, if the least bad practice was used, or even if the necessary evacuations were neglected but a few days. Here then begins the first appearance of the putrid constitution, described by Sydenham under the name of the *variolous fever*, easily cured by proper treatment in the beginning; but very dangerous and difficult if long neglected or ill treated. Many people have erroneously imputed these complaints to the summer fruits, which, at this season, are just coming in; whereas, in reality, Providence seems to have provided these fruits as a remedy against so great an evil. I have taken great pains to examine this matter without prejudice, and am convinced, that although some weak stomachs, like mine, cannot bear much fruit without inconveniency, yet the gross of mankind might preserve themselves from many putrid diseases by the free use of ripe fruit only: nor does it require any other precaution than that the fruit be ripe; that it be eaten before meals, and that a glass of plain cold water be drank after it; nay, I will venture to affirm, that any vigorous man, of a bilious or scorbutic constitution, who

does not labour hard, if he should, during the three or four summer months, live wholly on bread, fruit, butter-milk, and sallading, with a very little lean meat, and expose himself freely to the open air, would find himself more lively and strong, than if he had fed on the fattest meat, and drank the strongest liquors *. I know nothing more absurd than our feasts in summer, composed of the strongest animal food, and liquors which ought to be reserved for the cold damps of winter.

The true putrid constitution is epidemic, and therefore may be complicated with other diseases: when single, it subsides as soon as the original cause is removed; but when it is complicated, the epidemic must first be removed, and then the sporadic will appear in its natural state, and must be treated accordingly. I will give some instances of each, to shew how exactly this constitution has been observed by Sydenham; and if the dates of the cases narrated

* When one has first loaded his stomach with meat, and then overloads it with fruit, most certainly it will disagree with him, as Celsus has well observed long ago: “Poma nocere quidam putant, quæ immodice
“toto die sic assumuntur, ut nequid ex densiore cibo
“remittatur. Ita non hæc, sed consummatio omnium
“nocet: ex quibus in nullo tamen minus, quam in his
“noxa est. Sed his uti non sæpius, quam alio cibo
“convenit. Denique aliquod densiori cibo, cum hic
“accidit, necessarium est demi.”

by him are carefully marked, the variolous fever will be found to be the first appearance of the putrid constitution, and the dysenteric fever the last, immediately preceding the *cholera morbus*, or first appearance of the true bilious constitution, or harvest fever, by him called the *new fever*, or *schedula monitoria*, as shall be explained in its place.

CASE I. *Without a Fever.*

Mr. Bennington of Philpot Lane was seized with a pain in the pit of the stomach, and such a forenens, that he could not bear to have it touched; which symptom I do not remember to have seen exactly the same in any other disease; and therefore it may be called the *pathognomonic symptom*: 2dly, A heaviness in the head, some degree of heat, no quickness of pulse, nor petechiæ: 3dly, Little thirst: 4thly, The tongue like that of an healthy person, unless that it was somewhat white in the morning, but very rarely dry, and never very foul: 5thly, Spontaneous sweats, which afforded no relief: 6thly, A laudable separation in the urine. (Compare with Sydenham, cap. iii. *Contin. Fev. ann. 1667, &c.*) I ordered some blood to be taken, and a vomit afterwards: these remedies procured him present relief from the pain; but the confusion in

the head, and some pain in the loins remained. This blood was florid, not fizy, and the serum was yellow. I then ordered the purging apozem, a cup to be taken every hour till it should operate, and directed that the same should be repeated every morning till every symptom should disappear; during which time he was forbidden all animal food, but indulged in ripe fruit and cold water: he got well in four days; for the stated fever was prevented by the timely evacuations, and proper regimen.

CASE II. *With a Fever.*

Mr. Muir's house-keeper was taken, on the second of July 1769, with the same symptoms; for which she took saline draughts with diaphoretics: when I first saw her, she was in a profuse sweat, and still complained, 1st, Of the violent pain in the pit of the stomach, very tender to the touch, and rather tense: 2dly, Pain in the head and loins, with sinking and great dejection of spirits, heat of the whole body, a large purple spot all over the right external ankle, and several small ones on the left leg; the spot on the right leg was painful and rather swelled; but the spots on the left leg were flat and without pain: 3dly, She did not complain of thirst, but was much troubled with a clamminess and bad

bad taste in her mouth: 4thly, Her tongue was white in the middle, livid on both sides, rarely dry, and never black: 5thly, Profuse, spontaneous sweats from the beginning, which being promoted, rendered all the other symptoms more violent: 6thly, The pulse was very quick, neither small nor hard: 7thly, There was a red flushing upon her face, neck, and arms: 8thly, Made plenty of *urina jumentosa*, which did not relieve more than the sweats: I ordered her to be blooded, and then take a puke; to acidulate all her drink with common oxymel, and take *spir. sulph.* frequently in draughts; to throw open all the doors and windows, and take off some of the bed-clothes, to open the bed-curtains by degrees, and to eat some red currants. Next morning I found the blood was florid, frothy, but very tender; I increased the spirit of sulphur in the draughts, and directed a purge of soluble tartar and manna, ordering the patient to sit up in the free air all day. Every second day the purge was repeated; and, upon the twelfth of July, being the ninth day of the fever, she was able to do the business of the house; nor had any thing critical appeared, only she mended gradually after the first purge. At the same time Mrs. R. was taken in like manner, and was so well on the third day after the first evacuations of bleeding, vomiting,

vomiting, and purging, as to get up and walk about: she was very hungry, and dined heartily on boiled fowl; relapsed the next morning, and though she was soon relieved by vomiting and purging, yet she said the relapse had made her very weak; however, she had no symptom of miscarriage, although at that time young with child. This pain in the stomach was so violent, in some young girls, as to bring on strong hysteric fits. Miss Ch. when I first was called in, was pale and speechless, but still pressed with one or both hands against the pit of her stomach, by which I suspected the seat of the ailment was there: I ordered her to be bled, which brought her out of the fit; I then directed a puke; soon after taking the emetic, the fit returned and lasted an hour; when the fit went off the vomit began to operate, and she brought up a great quantity of party-coloured phlegm, and was much relieved: then she began the purging apozem, and was free from pain after the second motion; but the fever lasted five or six days; during which time she lived on rennette-whey with lemon juice, and strawberries, and her body was opened every morning with the same apozem.

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CASE III. *Complicated with the Small-Pox.*

About this time I was sent for to see Mr. Henville at Putney, who had been taken with all the symptoms above recited; and was much pleased to find, that Mr. Rose, the apothecary there, had taken about eight ounces of blood from him, and given him a vomit afterwards; the blood was florid, not fizy, but of a very good texture: I ordered him a purge of soluble tartar and manna, to be repeated every morning till all the symptoms should subside, and to live on rennette-whey, ripe fruit, thin gruel, or panada with lemon-juice. Upon the third day the small-pox came out exceedingly thick upon all the face, neck, and other parts. He was then taken out of bed, and placed in a current of fresh air; his diet was continued, his body was kept open by clysters from time to time; and as some of the spots looked blue, all his drink was acidulated with spirit of sulphur; nor was he suffered to keep his bed in the day-time till after the sixth day of the eruption. Upon the eighth day his pulse became small and soft, and then five grains of very good bark were given every third hour by way of cordial: and thus we proceeded throughout the whole disease.

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There never was a confluent small-pox which seemed to threaten greater danger; however he went through it very easily; and though they did not turn before the eleventh day of the eruption, or fourteenth of the disease, yet his head did not swell to that degree, nor was the salivation near so copious as is usual in such cases: he was blind for three days only; his hands and feet never swelled to any considerable degree, and the crusts fell off soon, leaving him in perfect health.

I was soon after called to see Mr. Gordon in Little Tower Street; he had been returned but a few days from a long sea-voyage; in the beginning he was seized with the like symptoms before the eruption of a very confluent small-pox, but had not been so freely evacuated as Mr. Henville: I saw him first on the eighth day of the eruption, and put him on the same course as Mr. Henville; only he required less bark and more purging; he went through the disease pretty well; but his head swelled prodigiously; he had a very troublesome salivation; his hands and arms were much swelled; his feet did not swell much; he was blind for eight days, although his face was frequently moistened with tripe-liquor, (which, by the bye, is the best application I have as yet seen for softening the scabs) and his eyes were poulticed now and then

to procure a free discharge of the matter. Perhaps opening the bladders on his legs, and wiping up the matter frequently with a piece of soft sponge, prevented the swelling of the legs, and the second fever. Compare this with Sydenham's letter to Dr. William Cole, art. 8, 9, 10. and again, art. 12*.

This pain in the pit of the stomach is not so much a symptom of the small-pox, as of the epidemic constitution, which is common at this season of the year, and may therefore be complicated with it, or with any other accidental fever, and which always requires to be first attended to in the method of cure. 2. At this season of the year, there is a putrid collection in the first passages, partly different from bile, as may be seen by the colour when brought up; if it is quickly evacuated in the beginning, and the sweating not encouraged, the whole disorder subsides very readily in a few days; and although the symptoms are partly different in different people, yet the same treatment will generally agree with them all, so long as this constitution prevails.

Mrs. S—n has been subject to a particular species of cough for years; it was

* “ Now, says he, allowing this to be the genuine
“ and just history of this disease, it is manifest, that
“ failure or success, on either hand, depend upon lay-
“ ing a good or bad foundation for the cure in the
“ beginning,” &c.

supposed

supposed to be nervous, and treated accordingly with a great variety of nervous medicines, opiates, and mineral waters, to no purpose. With the cough, which was almost perpetual, she had a loss of voice, and great dejection of spirits, and a constant pain and tightness cross the breast, about the insertion of the diaphragm; her tongue was foul, and the pulse full, hard, and rather quick. This was her situation when I was first consulted for her in the month of January: I then considered the complaint as inflammatory, and cured it by bleeding, a diet of whey, dried fruit, and vegetables, and a small quantity of spirit of sulphur, very much diluted in pectoral decoction, taken daily. On the third of July she had a return of the cough and former symptoms, with the addition of that pain in the pit of the stomach, and under the cartilage, which was epidemic at that season, and has just been described; the tongue was foul, pulse not very quick, and no great heat; she was bled to ten ounces, and her body was opened with soluble tartar and manna, which soon moderated the cough, and violence of the pain; this blood was rather fizy; the next day the bleeding was repeated to about six ounces, and the purge also; her diet was reduced to mayduke cherries, and strawberries, then quite ripe, and all her

her drink was acidulated with lemon-juice. The second blood was florid, but less fizy; after which the symptoms abated greatly: she began the spirit of sulphur in draughts every four hours, continued the drink and diet for four days more; during which time her body was kept open, and the whole disorder was quite removed. Hence then I infer, that the epidemic was the principal disease, and that the cough was the effect of this lady's particular constitution. There is a remark of Sydenham too pertinent not to be quoted on this occasion, cap. iv. sect. 4. art. 6. " These particulars clearly shew how difficult it is universally to ascertain the species of a fever from its concomitant signs; but it may be sufficiently known, by carefully attending to other diseases arising in the same time, and the symptoms peculiar to the stationary fever, so far as they depend on a particular kind of evacuation: a consideration likewise of the method, or medicines to which it readily yields, greatly conduces towards discovering the species of the fever: but as the fevers arising in this month of July should be referred to the sensible qualities of the air, so also the various symptoms (which are quite foreign to their nature, in as much as they depend upon such a general constitution) are derived from the mani-

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“fest qualities of the air, happening in
 “the same month. Hence it is, that in
 “those years wherein these fevers seize
 “abundance of people in this month, they
 “are attended with a variety of new
 “symptoms, besides those which are pecu-
 “liar to them as they proceed from the
 “general constitution; and yet they still
 “continue the same, though by the un-
 “skilful they are esteemed as new fevers;
 “on account of the diversity of their
 “concomitants; but these concomitant
 “symptoms continue but a short while;
 “whereas the proper symptoms which ac-
 “company them as stationary, continue
 “regularly throughout.”

As I was writing this quotation from
 Sydenham, I was interrupted by an uncom-
 mon pain in the pit of the stomach, and
cartilago ensiformis; I thought it might be
 the consequence of acid phlegm with which
 I commonly abound, and for which, as
 usual, I took some bitter tincture of rhu-
 barb: this had frequently relieved me, but
 now it increased the pain considerably; and
 indeed it became greater than I could well
 bear. Upon which I took a vomit as soon
 as possible, and worked it off with thin
 gruel. What I brought up was bitter
 phlegm, but not more yellow than might
 have been expected from the rhubarb. The
 vomit relieved my stomach and breast; but
 then

then I perceived that my bowels were disordered, and began a solution of soluble tartar and manna, till a purging was brought on, diluting plentifully with balm-tea and chicken-water; I now perceived a great confusion in my head, heat on my skin, and great quickness in my pulse: after six stools these symptoms abated; I went to bed and fell into an uneasy sleep for some hours, during which time I sweated profusely; when I awaked I found my mouth clammy, skin hot, head confused, tongue foul, pulse quick, and urine yellow and loaded: then I examined the stools, they were slimy, but not yellow: I got out of bed, was shifted, and put on my clothes, began the purging emulsion again, and continued till I had five or six plentiful motions; they were of an orange colour, and relieved me very much. I kept up this diarrhoea for three days, drinking plenty of balm-tea, chicken-water, and thin mutton broth with lemon-juice, water-gruel, and the like, with a little old hock in my balm-tea. All this time my water was deep-coloured, which could not arise from my diet, nor the fruit I eat, which was a considerable quantity, both currants and cherries, which did not sour on my stomach as they commonly do when I am in my usual health. From hence I infer, that this morbid matter resisted acids, and even corrected

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that

that natural propensity in me to breed acids in the first passages. I continued to eat fruit freely before meals, but felt nothing of the heart-burn for many days. The same thing happened to a friend, who told me, that he was much troubled with acidities in the first passages for thirty years, which prevented him from eating fruit and most vegetables, and obliged him to refrain from milk, French wine, and fermented liquors; but that about two years ago, he had a tedious fever in the summer season, and since that time had never had the heart-burn, nothing now agreeing better with him than acids of every kind. It may then be concluded, that the matter of this fever is rather of an alkaline nature, and is best corrected by acids, as indeed I have experienced in many cases: the first part of the cure, however, must consist in clearing the first passages, and repeating this evacuation as often as the case may require; first, by vomit, if the collection, or any part of it, is in the stomach: and, secondly, by soft bulky purges, if the collection is lower down; which last is more common towards the end of July, when the seat of the pain is at or near the navel, and commonly towards the right side. In the mean time, it is very pleasing to confirm, by our own experience, what Hippocrates has observed so many years ago, *De Ration. Viet. in Morb.*

Morb. Ant. “ *Aceti aciditas morbis biliosis*
 “ *majus confert:*” Then a little lower, he
 gives his reasons: “ *Sic amara dissolvuntur,*
 “ *et in pituitam transeunt.*”

The second stage of this constitution is that which Sydenham describes by the name of the *bilious cholic*; and this may also be with or without any considerable degree of fever, though there is, for the most part, some *terrentia*, such as chilliness, heaviness, and the like, felt for a day or two before it. The seat of this cholic is about the navel, and biliary ducts, as was said above of the phlegmatic cholic; but the cause is different, as Hippocrates well remarked in his chapter *De Nat. Hom.* “ *Per hiemem augetur pituita, et vere sanguis incressit; æstate bilis; autumno vero atra bilis.*” Hence it is evident, that the spring cholic is of a more inflammatory nature, and consequently requires larger and more frequent bleeding; does not require so sharp acids, but more active vomits and purges; because the pituite (bred by the winter) is of an inert nature, and frequently very viscid; whereas the bile in the month of July is not as yet become thick, and therefore is easily moved by soft medicines; nor do we find it necessary to bleed largely, nor very frequently; but always to correct with acids throughout the whole disorder. I shall endeavour to explain

plain the nature of this disease by a case, and then it may be more easily distinguished from all others which resemble it in symptoms.

Mr. Beuzeville of Walthamstow is a corpulent man, middle aged, of a very florid complexion, and subject to a chronic asthma: I was called to see him on the twenty-second of July 1769, and I found that he had been taken with a slight feverish disorder, which was succeeded by wandering pains, and much flatulency in the bowels; for these complaints he had taken some little purge, and was relieved: in the evening after the operation, he had been advised to eat some chicken, by way of preventing the wind from gathering in his stomach: next morning the pain returned with double violence, which abated between whiles, but soon returned again: this pain was first round the navel, and most towards the right side: with the pain he had great sickness at the stomach, and brought up all he had eaten the night preceding, and a great deal of phlegm, but no bile: his belly at first had been much drawn in, but now felt distended and tense: the anus was drawn upwards, or introtracted to a great degree: his pulse was hard, and beat about one hundred and twenty in a minute: his tongue was much loaded, and of a greenish yellow colour: his

his urine was yellow, and in considerable quantities : his skin was hot, his spirits dejected, and he was very restless: I ordered him to be blooded to ℥xii. and a purging clyster to be injected, which, however, could not be done by reason of the intro- traction and violent contraction of the anus. He then began an apozem of manna, ta- marinds, soluble tartar, and tincture of senna, which staid pretty well on his sto- mach; and, by the time he had taken about half a pint of it, he broke a little wind; upon which the clyster was inject- ed pretty hot; the purging then came on, and was kept up with tamarind, beverage, and other soft, acid liquors, sweetened with honey, according to the *Aph.* of Hippocrates: "*Corpora ubi quis purgare volet, facile fluentia reddere oportet:*" nor was he suffered to taste any thing by way of nourishment: "*Im- pura corpora, quo plus nutriveris, eo majus lædes.*" The next day the pain was diminished; the pulse was one hundred only, but still hard and full; the belly was not emptied, and the tongue was foul; the urine also was yellow, and the blood very fizy, like foul tallow: I ordered ℥viiij. more blood to be taken, the purging to be kept up with the emulsion of manna and so- luble tartar, his thin liquors to be con- tinued, and an emollient clyster injected

by way of anodyne at night: I forbid all cordials and solid food, fruit only excepted. I find ripe fruit to be the true natural soap for dissolving bile; nor did I allow any wine, animal substance, or opiate.

I do not find opiates of service in this complaint, till the whole morbid matter is evacuated; and I am sure, the too early and frequent use of them retards the cure. I have also tried the opium with the *extract. cathart.* as is usual here at present, which has succeeded after large bleedings in some of the pituitous cholics; but in the bilious cholic, I succeed much better with the soft bulky purges after bleeding, when necessary; nor do I know any thing which increases the acrimony of the yellow lentor so much as opium, except alkaline salts and the fat of meat. When I consider the quantity of yellow matter discharged in twenty-four hours by vomit and stool in some cases, I can hardly believe that the whole has been secreted by the liver, and sent through the *ductus communis*; but am rather of opinion, that in this morbid state of the body, all the juices are tinged with yellow; the blood, we know, is so; the urine is so; and why should not the gastrick liquors be so, as much as the inside of the mouth? The same pituite which was white in spring and the beginning of summer, becomes yellow in July,
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more yellow in August and September, and so deep a dark yellow in October and November as to be called black; when the pituite was white, it occasioned a *synochus non putris*, and after a certain coction, would go off by the skin; but now it is become yellow, it will not go off by any other channel than the common sewer of gross matter, the bowels; nay, it is now become so acrid, that if it is not evacuated speedily and frequently, it will corrupt all the humours, and bring on that anomalous monster, the true putrid and malignant fever, of which I have seen many instances.

But to return to Mr. Beuzeville; the second blood was neither so fizy nor so yellow as the first; but the loss of it relieved him very much; the medicine then purged him kindly, and brought on a diarrhoea, which, by the help of currants and a subacid vegetable diet, performed the cure in a few days. If this case is compared with that of Mrs. R. the difference will easily be perceived; a fluxion of yellow morbid matter, which I chuse, with Hippocrates, rather to call yellow lentor, than bile, upon the bowels, was the cause in both cases: in Mrs. R. the stomach was the seat of the pain; therefore, she brought up much of this lentor, and was relieved by vomiting; whereas Mr. Beuzeville was not relieved by vomiting, and what he brought up was not yellow: the seat of his pain was lower, perhaps in the

duodenum; Mrs. R.'s blood was not fizy, and therefore she did not require a second bleeding; but Mr. Beuzeville's blood was very fizy, and the second bleeding was necessary to remove the universal tension, before the separation of the morbid matter could take place; both, however, required purging, and could not be cured but by an artificial diarrhœa, and a regimen of fruit and acids to correct the whole blood. In this they both persist at present, and so do twenty others of my patients who are ill from the same cause; nay, they are sensibly hurt, if they eat animal food for two days together*. How long they may be obliged to observe this regimen I cannot say; but I imagine it will require a considerable time before this disposition can be altered, unless they take a regular course of some of the purging waters, or of drinking and bathing in the sea-water, which I have frequently found a good remedy for those constitutions at this season of the year, as well as for the *atra bilis* of the later season. When Sydenham wrote his Essay on this cholic in the years 1670, 1671, 1672, he took notice of the hysteric or spasmodic Cholic, under which name he evidently describes the pain and spasm arising from gall stones and bilious concretions, sect. iv.

* This was written in August 1769.

cap. vii. art. 17. "The pain goes off in a day or two, but returns again in (perhaps) a few weeks, and rages with as much violence as ever, before the fit terminates. It is sometimes attended with a remarkable jaundice, which vanishes spontaneously in a few days." That symptoms similar to these may happen from spasm, is true; but as the method of curing spasms, and bilious concretions, is almost opposite, it is necessary to distinguish these two complaints very critically. To explain the difference, I will give one case of each, although it may seem foreign to my present purpose.

About three years ago, Mrs. B. was taken ill of obstructions in the biliary ducts, which brought on a jaundice and dropsy: she is about forty years of age, of a lax and corpulent habit of body, sedentary life, and formerly a gross liver, that is, she eat plain, roasted, and boiled fat meat, and drank beer or Port wine; but never exceeded what is common among the sober citizens of this town: To remove this complaint, I ordered Stork's mixture, viz. *R Pulv. jalap. sal. polychrest. pulv. rad. valerian. sylv. āā ʒj. oxymel. scillit. ʒiv.* to be taken morning, noon, and night, so as to keep her body regularly very open every day, and directed her to abstain from all animal food, butter, and strong beer.

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In the space of six weeks she was quite recovered to all appearance, but relapsed in about six months: the same medicines and diet recovered her again; and by the help of exercise she remained well about one year, when she was suddenly seized with the symptoms of a bilious cholic, and became all over yellow, although she had vomited and purged a great deal of bile. These fits returned every second or third day like an irregular ague, and began by a cold fit, hot fit, and sweating; but I soon perceived the difference; for the vomiting did not subside with the cold fit, but continued throughout the hot and sweating fits; and the sweating and purging of yellow bile came together. In the mean time she was free from fever during the days of interval, and her urine was yellow, nay black, for a day after the fit; but became more clear the second day. Now Stork's mixture had little effect; I therefore advised her to go a long journey into the country, to live wholly on fruit, whey, and vegetables; to drink small beer, cyder, and lemonade with honey, and keep her body open with the aperient neutral salts and manna. In the country, however, she had new advice, and went to Bath, where the bark was given: at first she imagined herself better, but soon perceived her mistake. Upon her return hither I had the stools examined,
and

and there were found some gall stones, which confirmed me in my former opinion. More advice was had, and she was put on a course of purging every morning; but an opiate was always in readiness to be taken as soon as the fit returned: this did not succeed; I still persisted in advising fruit, whey, vegetables, and neutral salts, with honey, manna, and constant exercise, and a strict prohibition of all kinds of opiates and animal food; to this regimen she consented, and by degrees perfectly recovered.

It was remarkable in this case, that a wine glass full of the juice of seville oranges took off the pain and spasm better than an opiate. She went to drink and bathe in the sea by way of security, and her disorder has never returned.

About this time last summer, August 1768, I was sent for by Mr. Hayward of Hackney, to see one of his patients, a young lady supposed to be ill of a bilious cholic, for which she had been treated in the usual way; but the pain and other symptoms rather increased than diminished upon the evacuations; all the skin of the belly was very tender, and the pain of the cholic was so great at times as to be alarming: her pulse, however, was soft, and neither quick nor strong; her tongue was clean, urine pale, and she complained of

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cold feet, although she lay in a warm bed : I ordered an anodyne clyster to be injected, and the following draught to be taken every four hours till the pain should subside : *R Sal. vol. c. c. pulv. castor. āā gr. v. confect. cardiac. ℥i. aq. alexit. simpl. ℥iss. tinct. thebaic. gr. v. syr. croc. ℥i. m.* The third draught moderated the symptoms, and by using it a few days, she recovered ; after which she took steel in substance, and at last the cold bath ; nor has she had the least return since. The difference of this last case from that of Mrs. B. is so evident, that it needs no explanation.

With regard to the dry gripes, the *colica Pictorum*, the Devonshire cholic, and the flatulent cholic arising from indigestion ; they are all of the nature of the bilious cholic, and require a treatment nearly of the same kind : the *colica Pictorum*, or that which arises from rough astringents or poisons, requires a treatment according to the nature of the offending matter, which must be ascertained before the remedy can be administered with propriety. Sometimes it is difficult to distinguish a nephritic cholic from a bilious and hysteric cholic : to assist in this particular, there are some leading symptoms to be observed. In the bilious cholic, the urine is of a yellow colour, whereas it is pale both in the nephretic and hysteric cholics, unless they are

are complicated with bile; in which case, they are both to be treated as bilious cholics, till the bile is quite evacuated; after which they are to be distinguished from each other very easily; for the nephritic cholic is highly inflammatory, and attended with all the symptoms of great inflammation; the pulse is more full than in any other cholic; the countenance is not pale, nor the sick dispirited, nor are the extremities so cold as in the hysteric cholic: but in all cases where the bowels are affected, whether they are the original seat of the ailment, (*protopatheia*) or suffer by consent of parts, (*deuteropatheia*) there are some general rules of practice which ought to be carefully remembered; the great mischief which I have seen in bowel complaints, has generally arisen from mistaking the consequence for the cause of the disease. Sydenham was so sensible of this, that although he had treated of the hysteric cholic in the year 1676, &c. yet after ten years longer experience, he found it necessary to correct himself; and accordingly, in 1682, in a letter to Dr. Cole, he resumes the subject of the spasmodic cholics, and makes the following observations, viz. art. 121. "But
" unless the pains occasioned by vomiting
" be intolerable, we must be cautious of
" mitigating them by any opiate before
" proper

“ proper evacuations have been made.” And again, art. 122. “ Therefore, I judge “ it necessary, from longer experience, to “ make proper evacuations before exhibiting opium in any form.” The bowels are very membranaceous and nervous; therefore so tender when affected, that the whole nervous system is thrown into disorder; the heart becomes weak, and consequently, the circulation irregular and languid, by which the ignorant are deceived, and imagine there is inanition; whereas most probably the ailment arises from the repletion or oppression: it is most evident, that when the bowels are in pain, there must be some *causa irritans* to occasion it; to remove which Nature commonly makes some efforts, either by reaching, or tenesmus: to assist Nature most people immediately order a vomit, or a purge according to their idea of the seat of the turgid matter, and in most cases they succeed; but when the attack is violent, and the spasm universal, the confusion is so general, that no medicine will have its natural effect, till the tumult is first quieted. This led Sydenham originally to the too early use of opium in these complaints: he was sensible of the bad effect it had in preventing all evacuation for a certain number of hours, (according to him no less than twelve) yet he thought an anodyne

dyne absolutely necessary, that the evacuating medicines might remain in the body long enough to take effect: however, by thinking and longer experience he discovered, that plentiful bleeding answered all the purpose of the opiate, with this further advantage, that besides taking off the spasm, it promoted the operation of the cathartics, and assisted Nature to remove the obstruction: and indeed I have often been surpris'd to see how much a single, seasonable bleeding has restored the natural functions, and brought the pulse to steadiness and regularity. If the bleeding is not sufficient to answer every purpose, the next antispasmodic is hot and emollient applications external and internal, which, after plentiful bleeding, will frequently succeed; and if they should still be ineffectual, the warm bath seldom fails to procure a respite sufficient for the medicines to pass: opium, therefore, is to be used the last of all the antispasmodics in these complaints, and never till after all others have proved ineffectual. Sydenham also takes notice of two advantages obtained by this method of practice: first, "There is," says he, so considerable a plenitude of "blood and juices in some bodies, (especially "in sanguine and robust women) as to render the frequent repetition of the most "powerful opiate ineffectual: in such, "therefore,

“ therefore, bleeding is indispensibly necessary, and a purge must then be administered ; and these things being rightly performed before proceeding to the use of laudanum, the opiate which availed not in a large quantity, will now answer the end in a moderate dose. Moreover, secondly, I have learned from much experience, that whenever the patient has been accustomed by degrees to laudanum, and proper evacuations have not been previously made ; she is compelled, by reason of the return of the pain, so soon as the virtue of the opiate vanishes, to repeat it every day for some years, gradually augmenting the dose ; so that in time, it becomes impossible to leave it off, notwithstanding all the digestive faculties are injured, and the natural functions weakened thereby ; though I do not conceive that the use of laudanum does immediately hurt the brain, nerves, or animal faculties.”

The third stage of this constitution is the putrid dysentery, which is either simple, or complicated with a fever : at this season of the year the humours are rendered acrid and easily thrown upon the bowels, where they occasion much heat and uneasiness, with a frequent inclination to stool : at the same time, if we examine the urine, we find it of the colour it had in the bilious cholic :

cholic: these ailments then arise from a similar cause, and differ chiefly in a few particulars, *viz.* during the cholic, there was a degree of constipation; whereas in the dysentery, the pain is followed by stools, or rather an inclination to go to stool; for after the first stool or two, the quantity discharged in a dysentery is inconsiderable: a patient has told me, that he had been twenty times at stool in one night, and yet that the whole quantity, besides the urine, did not amount to half a pint: I have, however, always remarked, that the larger the stools, the pains and frequency were less, and *vice versa*. I imagine the matter is more acrid in the dysentery, because the sick complain more of loss of strength, and the pulse is more sunk; which indicates the greater necessity of dilution, and more acid than was required in the cholic; hence also, there is great danger in giving the smallest check to the flux of this acrid matter; for if it does not pass off freely by the bowels, it easily returns upon the blood, by reason of the heat of the weather, and the natural propensity to sweat; in which event, it contaminates all the juices, and mixes so intimately with them, as not afterwards to be separated without great difficulty. This gives rise to the *dysenteric fever* of Sydenham, which is always ill-conditioned. The whole dexterity in conducting a dysentery

sentery consists, first, In procuring real plentiful stools every day, according to the quantity of matter necessary to be evacuated: secondly, In employing medicines for this purpose which dilute and sheath the acrimony of the matter to be discharged. By these means the blood is gradually depurated, whilst the bowels are at the same time preserved from excoriation; and I can venture to affirm, from certain experience, that there are very few dysenteries arising from this cause, which will not yield to this treatment, provided only, first, That it is begun early enough: secondly, That it is conducted with propriety: thirdly, That it is persisted in till the cause is removed: fourthly, That the diet is regulated so as to correct the morbid matter, and not add new fomes to the disease, even after the appetite for solid food begins to return. The best diet is prepared from bread, barley, rice, or fruit, and made pleasant with lemon juice, with sugar, or honey, when it agrees, or cremor tartar. Many people have thought vomits specific in dysenteries, and no doubt they are of great service to unload the stomach in the beginning; but I have cured many hundreds without any vomit: when I see the bile flow freely by gentle purges, and find the sick relieved after them, I seldom order a vomit, unless there are signs of turgid matter
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in the stomach ; but if I perceive the stools watery, and they do not give the relief I expected, then I suspect that the biliary ducts are sluggish ; and therefore give a brisk puke, after which the bile flows more freely. In some atrabilious habits, I have been obliged to repeat the vomit every other day, three or four times, before the desired effect could be obtained ; but I observe, that this practice is more necessary in September and October than in the early dysentery of July * ; because the yellow bile is more thin, very acrid, and easily moved ; besides, the currants, gooseberries, and cherries, are in such perfection at this season, that they alone are sufficient to dissolve the bile so as to render it moveable. The prejudice against ripe fruit is at last happily removed, by the joint testimony of all the medical men of ability, so that I add no more upon that subject. The purge I commonly give is manna and soluble tartar dissolved in barley-water, or emulsion, which I order cup after cup every hour, till real stools come away ; then I stop till next morning, when the same is repeated as before : and thus I proceed every morning till the disease abates, without any opiate or astringent, and direct a draught of some soft, acidulated liquor to be taken after every

* Vid. Chap. on the Atrabil.

stool, day and night.^o The first sign of amendment is the absence of pain before going to stool, and the increase of pulse and spirits; then remaining in bed all night, without being obliged to get up to stool; after which the stools begin to get some consistency, the desire for solid food comes next, and at last, there are four evacuations from the stomach, according to the observation of Hippocrates, *Aph. sect. 6.* and *Epid. lib. ii. sect. 2.* “ *In diuturnis lævitatibus intestinorum, si acidus ructus superveniat, qui prius non extiterit bonum est signum.*”

Now, indeed, rhubarb will be of service; and warm opiates, if indicated, will do no harm; but after repeated trials, I do not find that either of them succeed well in the beginning of this disease, although they may be of service to strengthen the bowels after the morbid matter is evacuated by soft purges, and corrected by ripe fruit and acids: it is always necessary to be careful in diet for some days, to take exercise and country air for some weeks, without which, relapses are not uncommon. I do not mean here to treat of all the various dysenteries, nor the methods necessary for every case that may occur; my present purpose is to explain the nature of that dysentery which is frequently epidemic here in July and August;

I only mention the general plan of cure, to give an idea of the disease.

The first appearances of it, are a heaviness and sense of fulness and oppression, then a little chilliness, succeeded by some heat, pain in the head, back or limbs, which subside, and are followed by pain in the stomach or lower belly; after some hours a purging comes on, and carries off most of the former symptoms; in which case it is only a simple dysentery: but if, instead of this, the former symptoms rather increase, and accompany the purging throughout, then it is a dysenteric fever, which is the last stage of this constitution: the great loss of strength, and dejection of spirits which frequently accompany this fever, have stamped it with the idea of malignity, and the great propensity to sweat is apt to mislead into the opinion, that Nature endeavours to expel the malignant matter by the skin, as is the case in some pestilential fevers; but experience uniformly proves, that the early sweats in this fever are symptomatic, and do not give relief, and that the bowels are in general the road by which this matter may be carried off, and the patient relieved with ease and propriety, so long as it is not complicated with some other distemper of a different nature. “I
“ was ever of opinion (says Sydenham,
“ cap. iv. art. 10. *Contin. Fev.* 1669, &c.)

“ that a man’s escaping with his life is not
“ a sufficient proof of the excellency of
“ the method of cure in acute diseases,
“ since some are recovered by the impru-
“ dent procedure of unskilful women ; but
“ it is further required, that the distemper
“ should be easily conquered, and yield,
“ as it were, conformable to its own
“ nature.” When the purging brought
on by Nature does not relieve the fever,
I conclude that she is in too great a hurry,
or that the stools are deficient in quantity ;
for which reason I order some blood to be
taken if indicated, and then begin a plen-
tiful dilution for some hours ; after which
I endeavour to find out whether an emetic
is necessary, ‘according to the symptoms of
the seat of the turgid matter, and proceed
as they indicate ; after which I order a
cup of the purging apozem to be taken
every hour till real excrementitious stools
come away ; then I return again to dilu-
tion, giving strict charge that the diet be
vegetable and subacid ; nor do I prohibit
small beer, small cyder, or cold water, if
coveted : the next morning I order the
emulsion with manna and soluble tartar as
above ; and thus I proceed every morning
till the symptoms are abated. It is seldom
necessary to repeat the bleeding, or even
the vomit ; sometimes indeed there is a
dull pain, and a degree of fulness in the

lower belly, which do not give way to the physic, and for which I frequently order clysters with honey or manna to be injected pretty warm, according to Sydenham, who observed, that although cold drink was required, yet the clysters ought to be warm. Indeed I can, from experience, confirm all that Sydenham has said of this fever; if such a method is followed from the beginning, it commonly ends in a week, leaving no other complaint behind, than a little weakness in the bowels, which soon goes off by proper diet, air, and exercise, and a little addition of mineral acid to the drink. When once the violence is abated, I do not hinder the sick from remaining in bed, nor am I so solicitous to prevent a sweat, if it should offer spontaneously; but forced sweats always do mischief in this fever, even after the first evacuations, and bitters disagree when given to remove the remaining weakness of the bowels; but cholebeate waters are taken with advantage.

Some years ago, I was sent for to see a young lady who was taken with a bilious cholic: she had a constant tenesmus, but hardly any evacuation; after bleeding she complained of sickness and a load at her stomach, for which a gentle puke was given; then she began the purging apozem till she had several stools, and was directed

to drink cremor tartar, whey, barley-water, gruel, or panada with lemon, and to sit up all day; next morning the ptisanne was repeated, and the diet and drink were continued, with the addition of some ripe fruit; in three days she was seemingly very well, and was sent to Islington for the benefit of that spa, air, and exercise. Soon after she went out of town, her diet was neglected, and she complained of a disorder in her bowels, which was supposed to arise from worms; accordingly, she was put on a course of anthelmintics; an ill-conditioned remitting fever was the consequence, for which I was again called in; and after a great deal of pain and danger, her life was saved by an eruption of aphthæ: these aphthæ were truly quartan, *i. e.* after a remission of two days, there came on a considerable degree of exacerbation, which went off by a fresh crop of aphthæ: during the intermediate days, the slough separated with a salivation, or rather a flavering, and some purging stools, neither of which were discouraged; at length the exacerbations began by a little chilliness, the water became more muddy, the pulse more soft and slow, whilst the slough advanced more and more upwards, and we had reason to believe, downwards also; the fever, however, evidently subsided on the days of interval; but her strength was so much reduced,

reduced, that we thought it proper to give her the bark, which prevented the return of the paroxysms, and we imagined the disease judged; but after several days, and when she had recovered some part of her strength, there came on an excruciating pain in the ischiatic nerve, and an enormous swelling of the whole leg and thigh, which required many months and a great deal of trouble to reduce.

In considering this case, it is evident, first, That the original yellow morbid matter, which gave rise to the first fever and complaint in the bowels, had not been sufficiently evacuated and corrected before the patient went out of town: secondly, That the remainder had been exasperated by the anthelminthics, and so gave rise to the malignant fever: thirdly, That after many days, some part of this acrid matter was separated from the blood, and deposited on the internal surface of the fauces, &c. fourthly, That this eruption of aphthæ, though imperfect, was critical, and procured some abatement of the fever: fifthly, That by degrees, the repeated pushes of aphthæ brought the continued fever to a species of regular quartan: sixthly, That the bark stopped this intermittent, but did not evacuate nor correct the cause of the fever, nor was it perfectly judged till the remainder of the morbid matter

matter was deposited in the cellular membrane of the leg and thigh *.

The next year, I happened to call at the house of a friend, and was desired to look at one of the children, a boy, who had been ill several days; the disease had been called an intermittent by the apothecary, who, after purging with rhubarb, had sent some febrifuge draughts: I found the boy in a high fever, with some pain in swallowing; I could see nothing particular in the throat, nor were the tonsils swelled: I forbade the draughts, and prescribed a purge with manna, &c. next day I was informed, that after the operation of the purge, the fever had increased very much, and that the child continued burning and restless till towards morning, when he rested, and became more cool; during the night he had drank plentifully of subacid liquors: I examined the fauces, and was able to see the aphthæ far back, I then considered the disorder as an aphthous fever, and treated it exactly according to the Boerhaavean method. These aphthæ were irregular during the first fourteen days, (which was twenty-one days of the fever) then they became irregularly tertian; from which time there was hardly any medicine of power given, and we agreed just to keep the body open *pro re nata*, and attend strictly to the diet. Upon the thirty-

* Query, Did the bark do any service in this case?

second day, the ailment was sensibly abated, after which the fits became quite regular, and the patient recovered some strength and appetite in the intermediate days: the whole was judged perfectly on the forty-sixth day, nor has the child ever ailed any thing since; but is remarkably stout and healthy.

By comparing these cases with many others of the same kind, I am convinced that Catelar is right, and that the aphthæ ought not to be discouraged when they give relief to the febrile symptoms: secondly, That although they at first may seem of little consequence; yet they frequently prove salutary by degrees: thirdly, That they are critical though tedious, and ought not to be stopped by the bark, nor any astringent, so long as the patient has strength to propel them: fourthly, That they are most frequent in fevers which affect the bowels, and that Nature seems by them to send off a particular morbid matter, which will hardly pass by any other outlet: therefore, I infer, fifthly, That we ought not to attempt to stop the flaverings nor little purgings, which happen on the intermediate days; they seem to compose a part of the critical discharge, and soon abate by the return of the exacerbation and fresh eruption: sixthly, Nor should we be over-anxious to moderate the violence

violence of the exacerbation by bleeding and other evacuations ; because it is critical, and will subside after the eruption. It is a good sign when the exacerbation begins by a chilliness ; and these are the most effectual that have the longest intervals. I have seen bad effects from the frequent use of opium and astringents ; nor ought the gargles or linctuses be much loaded with them. The diaphoretics are all dangerous remedies : I have always succeeded best in this complaint when I have depended chiefly on diet ; and indeed, by regulating that properly, every intention may be answered, till Nature has had time to perfect the crisis in her own way ; nor do I remember to have seen any advantage by endeavouring to substitute any other evacuation in the room of the aphthæ. The bad symptoms in this disease, besides such as it has in common with other fevers, are commonly taken from the colour of the aphthæ, and extent and thickness of the crust ; but I have always observed, that the fever was the only index by which the aphthæ could be judged of. Those aphthæ which relieve the fever are always to be promoted ; and although their colour may seem at first more thick or more dark than common ; yet by proper management, the next eruption may wear a better face. I have always found it a
bad

bad sign in the aphthæ, when the mouth became dry and black, when the flaving abated at once, when the exacerbations continued long, and consequently the intervals were short: secondly, When there was a kind of tympanitic swelling of the belly, or meteorysmus, which did not yield to soft purgatives, or clysters: thirdly, A short and difficult breathing, as if the matter were translated to the lungs. There is no way of removing these symptoms so certain as to promote these aphthæ in the fauces and mouth, by soft applications, which I have seen succeed in some cases, even after things had worn a bad face for a few days.

I find it necessary in apthous cases, where the eruption is to be promoted, to dilute the acids more than in any other putrid fever; for Nature requires a long time to separate this matter from the blood, and the strength being much exhausted by the long preceding fever, the weak endeavours of the fatigued vessels are easily frustrated, if the least interruption is given to the deposite upon the membrane of the mouth and fauces; for the same reason, tepid liquors better agree with this, than with most other putrid fevers, and it requires a soft cordial; such as, some of the sweet wines and Mountain wine-whey. The best acid I have as yet found, is the
common

common oxymel, and whey made with vinegar or lemon-juice, to which a little sack may be added. I have made trial of Tissot's acid mixture with spirit of sulphur instead of the oxymel this season; but it did not answer so well, as the mouth became dry very soon; I have therefore returned to the oxymel again: I could, however, observe, that the mineral acid did not make the body costive; but it evidently abated the flaving, and seemed to heal the mouth too fast; which put me in mind of Sydenham's observation, *Sched. Monit.* art. 11. "I add no spirit of vitriol to any of these medicines, says he, though it is very cooling, by reason of its remarkable stypticity; whence it is improper in all diseases requiring to be cured by purging, to say nothing here of the mineral nature of this spirit." But in the dysenteric fever, when the heat is excessive, and the pulse too small, I have had recourse to this spirit with success; especially if the skin felt damp, and the propensity to symptomatic sweats was very great; and also, in some bilious fevers, *i. e.* the new fever, or *schedula monitoria* of Sydenham, after the tenth day; and in cases where the proper evacuations had been seasonably begun, and properly persisted in till that time. In the beginning of all these complaints, it is to be avoided,
for

for the reason given by Sydenham; and I believe, that if the fever changes to aphthæ, the mineral acids will not succeed, unless to heal a little, when the swallowing is endangered by the quantity of slough; and then indeed the *spir. sal. marin. cum bolo*, mixed with some *mell. rosarum*, in Van Swieten's way; or with turnip liquor, in a mixture to be taken often; is a real specific, and not so astringent as the spirit of sulphur. I have met with some obstinate, chronic aphthæ called here the *black thrush*, which have been cured by acidulating all the drink with the spirits of sea-salt with the bole, after many other remedies had been tried in vain. I can also affirm from experience, that the bark will not succeed unless the fever has adopted the type of an intermittent, and then the danger is nearly over, even if it is suffered to take its course, especially if the sick is well supported between the fits, and there is a tolerable apyrexia; and if he is taken out of bed on the well days, and even made to sit up as much as he can bear without great fatigue; but here I refer to the rules already given in intermittents*.

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* The aphthæ are more frequent in the dysentery and dysenteric fever than in any other disease; the most common cause of them is a neglect of purging properly
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The first true *cholera morbus* that I met with this season, was upon the tenth of August 1769, when I was sent for to see three persons in the same morning. Upon the fifteenth I saw two more, viz. Captain C. and Mr. S. and upon the twentieth, I saw Mr. John B—n, all strong, healthy, young men. I had now reason to believe that the *cholera morbus* was come in, according to Sydenham, who says, sect. iv. cap. 2. "That the *cholera morbus* comes
" as constantly at the close of summer, and
" towards the beginning of autumn, as
" swallows in the beginning of spring,
" and cuckows towards midsummer." But the dysentery and dysenteric fever was not gone; for I had several people labouring under both at the same time, and some had bilious cholics also. Indeed, the *cholera morbus* seems to be of the same nature, and arising nearly from the same cause as the bilious cholic, excepting only, first, In the bilious cholic, the matter is obstructed; whereas in the true cholera, there is a real overflowing of the gall: secondly, It seems to be more among the people whose blood and vessels are in good order; and conse-

in the beginning of the fever; or the rash and unseasonable use of opium and astringents. The method of conducting the aphthæ explains the nature of the dysentery, and both must be cured by a treatment nearly similar.

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quently the coction and crisis is more perfect, and sooner completed than in the cholic: thirdly, It requires no spur, for Nature is very diligent and active; and all that remains for art is, to dilute plentifully by soft drink and clysters, till the morbid matter is wholly, or at least nearly exhausted; after which opium will be effectual, and not before: nor are the cramps and spasms to be regarded; the acrimony of the yellow lentor is the cause of all these symptoms, and they will subside after that is removed. One of the first three people required a plentiful bleeding, and his blood was very fizy and yellow; but with respect to the other two, I only directed them to drink a good draught of barley-water, thin gruel, or chicken-water, as often as they vomited, and every hour to inject a pint of the same liquors warm: when they could observe that the stools were neither foetid nor deep-coloured, nor the stuff brought up either bitter or discoloured; then they were to begin Van Swieten's mixture, No. 3. till the vomiting was stopped; but if the vomiting subsided of its own accord, then they were not to take the opiate, even if the purging should continue: accordingly, one only required the opiate, and the third spoonful settled his stomach: I have, however, frequently met with cases which required a great deal more; and I

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have

have heard of cases in the West Indies, where they have been obliged to give prodigious quantities of opium in this complaint, before they could conquer the universal cramp, which it seems is not uncommon among them. The next morning I ordered them to be gently purged with the apozem; to keep the body open every morning with soluble tartar and manna, till the tongue was quite clean, the skin cool, and pulse flow; during which time all animal food and strong liquors were prohibited; but ripe fruit, whey, and soft liquors were recommended; in consequence of this treatment, we had neither ill consequence nor relapse.

At this time, the twentieth of August, I saw three people ill of the true bilious fever, that is, the stomach was not much affected, there were no pains nor fulness in the bowels, nor any sign of purging; yet the tongue was like that of the dysenteric fever, and so were the urine and blood; the pain in the head and loins was considerable, the heat great, and the restlessness excessive. Two of these fevers went off easily in the common way; but one of them lingered fourteen days, and went into a double tertian: I did not attend this patient till the twelfth day of his fever, and then the air was much cooled by the rains, and the wind changed upon the twenty-second

second to the north, and the evenings became chill : upon the twenty-fourth at night, the air was frosty : and here I begin the date of the harvest ague of this season. " Intermittents," says Sydenham, sect. i. cap. ii. art. 14. " indeed derive their names " from the interval of two fits, and by " this mark are sufficiently distinguished, " provided regard be had to the two divi- " sions of the year wherein they happen, " viz. spring and autumn ; and yet some- " times fevers are of the true nature of in- " termittents, without any visible sign to " discover them by : so when autumnal " intermittents enter and appear early (as " in July) they do not presently assume " their genuine form, as vernal intermit- " tents generally do ; but so far resemble " continued fevers in all respects, as not " to be distinguished, without a very strict " examination : but at length, when the " force of the prevailing constitution is a " little weakened, they appear more ge- " nuine." And I have frequently seen, that the fever began in July, but did not intermit till August. Again, sect. i. cap. iii. the intermittent began in July old stile, but raged in August, that is, became epidemic. As the spring ague had been introduced in February, and accompanied with (a depu- ratory fever) the *synochus non putris*, to the end of June ; in like manner, the harvest

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ague is introduced in August by (a new fever) the bilious fever, and accompanied by it to the beginning of the inflammatory constitution, in the month of November or December. During the height of the inflammatory constitution, there are very few genuine agues; agues also are rare during the height of the putrid constitution; so that the ague is most frequent during the decline of these two constitutions. The agues of the two seasons differ chiefly in this; the spring ague, succeeding the high inflammation, is blended with it, as all the spring fevers are; and the harvest agues, succeeding the putrid constitution, are blended with it, as are all the fevers of the harvest season: hence arises the necessity of understanding the true genus of the putrid constitution of July, out of which the harvest fever is produced, in order to understand the proper method of conducting harvest agues: the best introduction, therefore, to an essay on the ague of the harvest season, is that which explains the diseases of the month of July; and having ascertained the method of treating the putrid fever, we are the better prepared for conducting the bilious or harvest fever, whether it is simple, or complicated with the ague. By all I can learn from carefully reading the best authors, by conversing with the most able physicians, and by my own

own experience for many years, I am convinced, that the fevers, and feverish complaints of what is called the *putrid constitution*, are best treated according to the rules laid down by Sydenham; and that these diseases are at this day just the same, and no other than they were in his time, as much as the plants are the same, and that they must ever remain such: “ For, “ (says he, sect. ii. cap. ii. art. 9.) every “ species of disease, as well as of animals “ and vegetables, is endowed with certain “ peculiar and univocal properties resulting from its essence, which must therefore be permanent, although beyond our bounded comprehension: however, an enquiry into the manner of curing diseases may proceed very successfully, though we are ignorant of their causes; because the cure of most diseases is not affected by this kind of knowledge, but by a suitable and experienced method.” And although it is impossible to lay down a method of treating diseases that arise from the putrid constitution, which may not be liable to some exception, yet I say, in general, the following rules will be useful.

RULE I. Where bleeding is necessary, it ought to be the first evacuation; after which the others are more safe and effectual.

RULE II. Many people require a vomit, because the morbid matter is turgid in the stomach.

RULE III. Purging is always necessary, and an open body throughout the whole ailment.

RULE IV. Sweating before coction is always hurtful, and ought to be moderated by mineral acids, if immoderate.

RULE V. The sick ought not to remain in bed during the day, till there appear signs of coction.

RULE VI. Ripe fruit and acids are the real dissolvents and correctors of this morbid lentor.

RULE VII. All animal food is pernicious before the violence of the complaint is abated.

RULE VIII. All opiates, alexipharmics, and blisters, are improper and injurious, before the pulse subsides.

RULE IX. Moderate spontaneous sweats during the night, are serviceable after coction, and towards the end, if the fever has been well treated from the beginning, and not otherwise.

RULE X. After signs of coction and partial crisis, the bark is useful, especially where the pulse seems sunk, and the mouth is not very dry.

RULE XI. When there is an obstinate headach in this species of fever, bleeding relieves

relieves more than blistering, or camphor: blood may be taken by cupping, if the pulse is small.

RULE XII. The drink is to be cold, and clysters warm, and the erect posture is not to be neglected in the day-time.

How then has it fallen out, that the opposite practice should be so frequently adopted, even by men who have read Hippocrates and Sydenham? At first this appears strange; but when I consider the degree of patience and attention that is required to follow Nature in her slow manner of proceeding, I am no longer surprised; men of lively parts always repeat, "*contraria adhibenda.*" But Hippocrates says, "*contraria paulatim adhibere oportet, et interquiescere. Periculosius censeo incidere in medicum, qui nesciat quiescere, quam qui nesciat contraria adhibere, nam qui nescit quiescere, nescit occasiones contraria adhibendi; quare nescit contraria adhibere. Qui nescit contraria adhibere, tamen, si prudens est, scit quiescere, atque si prodesse non potest, tamen non obest. Prestantissimus vero est medicus eruditus pariter ac prudens, qui novit festinare lente; pro ipsius morbi urgentia, auxiliis instare, atque in occasione uti maxime opportunis, alioque quiescere.*" Sydenham evidently arrived at his great knowledge in acute diseases, by patiently watching

the progress of Nature, sect. v. cap. xvii.
art. 10. " Nor do I, (says he) think
" it a disgrace to acknowledge, with re-
" spect to the cure of fevers, that when
" no manifest indication has pointed out
" to me what was to be done, I have done
" nothing at all; by this method, I most
" effectually consulted the safety of my
" patient, and my own reputation; for,
" whilst I carefully attended to the disease,
" in order to learn how it might be cured,
" the fever either went off gradually of
" itself, or came to such a state as shewed
" what medicines were to be used to re-
" move it. It is indeed much to be
" lamented, that sick persons in general
" do not know that it is sometimes as
" much the part of a skilful physician to
" do nothing, as at others, to exhibit the
" most powerful remedies; by supposing
" that something must always and imme-
" diately be done, they not only deprive
" themselves of the advantages of a fair and
" honourable procedure, if the physician
" conforms to their prejudices; but if he has
" virtue and honour enough to refuse, they
" greatly injure his character, by imputing
" his conduct either to negligence or igno-
" rance. The most illiterate empiric knows
" how to heap medicine on medicine, as
" well as the most prudent physician, and
" usually does it in a much greater degree."

In

In another place, he says, "That to imagine
" Nature incapable to cure diseases, is blas-
" phemy; because that would be imputing
" imperfection to the Deity, who has made a
" great provision for the preservation of ani-
" mal life." Again, says he, "All of us know
" that Nature performs a coction of morbid
" matter, but none of us can comprehend
" how; in this operation, therefore, we can-
" not assist but by accident; but if we are
" acquainted with the disease, we know
" the evacuation by which Nature most
" effectually evacuates that matter when
" concocted, and there we may be of ser-
" vice." In short, I find both the art,
and the practitioners of the art to-day, just
what they were in the days of Sydenham;
and therefore, I will here copy from him
what he has observed on this subject, in the
order he wrote; by which, perhaps, some
prejudices may be removed more effectually,
than if I was to use my own words. It has
been supposed by theorists, that bleeding
before purging might increase the absorp-
tion of the colluvies in the bowels; but
experience has at last proved, that, on the
contrary, it promotes the evacuation by
stool *. "But in the first stage of epidemic
" diseases, great care must be taken not to
" purge before bleeding. This I always

* Answer to Dr. Brady's Letter, art. 48.

“ maintain, though the present practice is,
“ to exhibit cathartics before bleeding; or,
“ which is still more dangerous, without
“ bleeding at all; and it must be owned,
“ that a purge taken immediately after
“ bleeding, works more gently, and agi-
“ tates less, than when taken before bleed-
“ ing: I am apt to think, that numbers
“ have perished for want of knowing this,
“ or through a neglect of it. And this I
“ have learned from long experience, which
“ is the sure guide in these cases; and unless
“ practice be regulated thereby, it were
“ better to discard the art: for the lives
“ of men are but too much trifled with;
“ on the one hand by empirics, who are
“ ignorant of the history of diseases and
“ method of cure, being only provided
“ with receipts; and on the other hand,
“ by such idle pretenders as rely wholly
“ upon theory: whence both together
“ destroy greater numbers than the diseases
“ would, if they were left to themselves.
“ But that method, and that only will re-
“ lieve the patient, which deduces the
“ indications of cure from the pathogno-
“ monick symptoms of diseases, and after-
“ wards confirms them by experience:
“ by which means the great Hippocrates
“ gained such an extraordinary character.
“ And if the art of medicine had been de-
“ livered by any person according to this
“ method,

“ method, though the cure of a disease or
“ two might have been no secret to any of
“ the common people, yet the whole art
“ would then have required more prudent
“ and skilful men than it now does, nor
“ would it have lost any credit thereby: for
“ as the operations of Nature, upon the ob-
“ servation whereof true practice is found-
“ ed, are much more subtle than those of any
“ art established upon the most likely hypo-
“ thesis; so of course, the science of medi-
“ cine, which Nature teaches, will exceed
“ an ordinary capacity, in a much greater
“ degree than that which is taught by
“ philosophy.

“ We have a proof of this in fevers
“ (which constitute two-parts in three of
“ the employment of physicians), and I
“ appeal to any thinking person for the
“ truth of what I assert. Is there an em-
“ piric, though ever so illiterate, who will
“ acknowledge himself unable to cure a fe-
“ ver, if (according to the general received
“ opinion) only these two indications are
“ to be regarded; first, to expel the mor-
“ bific matter by sudorifics; and, secondly,
“ to relieve the symptoms which succeed
“ evacuations of this kind? For he is
“ very sure, that Venice treacle, Gascoin’s
“ powders, plague water, and the like,
“ given internally, along with a hot re-
“ gimen, will force sweat, which is all
“ he

“ he proposes in the cure of this disease,
“ especially if he has chanced to hear of
“ the term malignity. And as to relieving
“ the symptoms, diacodium is in readiness
“ to cause sleep in case of watchings, and
“ a clyster when the patient is costive,
“ and so of the rest. But he cannot of
“ himself discover or judge by his pre-
“ scriptions, what kind of fever it is
“ which he attempts to cure; if we only
“ believe, as perhaps posterity will, that
“ there are various sorts of fevers, most
“ of which require their peculiar method
“ of cure different from the rest: and
“ further, that the same individual fever,
“ of whatever kind it be, requires one
“ treatment at the beginning, and another
“ somewhat different through all its stages
“ so long as it continues. Now, if a
“ person be ignorant of the natural history
“ of a disease, which only can point out
“ the true method of cure, how shall he
“ be able to deduce the indications of
“ cure from some less remarkable symp-
“ tom, when he cannot judge whether it
“ proceeds from his method of cure, or
“ the disease itself?”

Purging before coction was also con-
demned by the theorists; but as this pre-
judice is now happily removed, I shall say
no more of it here: Sydenham says, that
incocta non movenda was applicable only
to

to sweating, and that an open body is salutary in most fevers, and most stages of fevers; but particularly such as are bilious or putrid.

A third prejudice was, that there was danger in allowing free air to the sick, in taking them out of bed, and in giving cold drink.

With regard to fresh air and cold liquors, their advantage in all putrid and bilious cases, is so generally acknowledged, that no argument is necessary to recommend them; but the taking the sick out of bed, and obliging them to sit up all day, is not as yet established here, even among those who have read Duhaen's *Ratio Medendi*; nay, and have seen what Sydenham has written in his letter to Dr. Cole, art. 19.

“ I am well aware, that several objections may be made to this opinion of ours, of permitting the patient to sit up in the day-time; which may have great weight with the common people, to whom the lower rank of physicians generally appeal as proper judges in the case, that they may support their ill-grounded reasoning by their authority; such reasonings being in reality better adapted to their capacities, than those that are the result of deliberate consideration in men of deeper penetration. Hence it follows, that as the bulk of mankind can only arrive at a superficial
“ know-

“ knowledge of things, and but few have
 “ ability to go to the bottom, so these
 “ pretenders to learning, under their
 “ patronage, easily get the better of the
 “ more intelligent, who are often exposed
 “ to calumny, but bear it patiently be-
 “ cause they have truth, and the most
 “ knowing men, though not the greatest
 “ numbers, on their side.” Again, after
 long experience in putrid and bilious cases,
 among the very last of his works, *viz.*
Sched. Monet. art. 15. “ As this kind of
 “ fever is more apt to seize the head than
 “ any I ever yet saw, and cannot be re-
 “ moved thence without great difficulty
 “ and danger, I advise my patients to lie
 “ without their cloaths only a nights ; but
 “ if they are so much debilitated by the
 “ disease, that they cannot sit upright,
 “ I allow them to lie down upon the bed,
 “ or a couch, with their cloaths on, and
 “ the head a little high ; neither do I
 “ suffer a greater fire to be kept in the
 “ room than they were used to whilst in
 “ health.”

The success of this method of practice
 is confirmed by the observations of Syden-
 ham, not only in the putrid fevers of
 summer, the bilious fever of autumn,
 and the small-pox, but also in the in-
 flammatory fevers of the pleuritic and
 peripneumonic kinds, as may be seen

every where in his works : and he opposes indubitable facts to all the groundless hypotheses of the theorists, of whom he expresses his contempt by the following words, in his letter to Dr. Cole, art. 56.

“ And this delusory procedure does not
“ only deprive mankind of those singular
“ advantages which would accrue to them
“ from the ingenuity of many physicians,
“ but renders the art of physic rather the
“ art of discoursing than of curing. It is
“ come at length to this issue, that the
“ patient must live or die, as the philosopher conjectures right or wrong ; which
“ must always be highly precarious ; and
“ as much as the first inventors of speculations contended as warmly about their
“ fanciful opinions, as those did who
“ blindly followed them, and it may be
“ none of them in the right : for though,
“ by much attention, we may be able to
“ discover what Nature does in fact, and
“ the organs she employs in her operations ; yet the manner of its operating
“ will always be a secret to us : and
“ though it evidently appears, that the
“ brain is the origin of sense and motion, and the repository likewise of
“ thought and memory, it is, nevertheless, impossible the mind should be
“ so far enlightened by the most exact
“ inspection and consideration thereof, as
“ to

“ to understand how so thick a substance,
“ and a kind of pulp, which seems not to
“ be very artfully formed, should suffice
“ for so noble a use and such excellent fa-
“ culties: Nor can it be accounted for from
“ the nature and structure of its parts, how
“ any particular faculty comes to be exert-
“ ed thereby.” *L. c.* art. 42. “ These,
“ therefore, being the chief curative indi-
“ cations, when I have sufficiently answered
“ them according to the method just deli-
“ vered, I have discharged my duty as a
“ physician, and not a prescriber of medi-
“ cinal *formulæ*, which two arts, talents,
“ or provinces, as you please to call them,
“ differ greatly from each other.”

OF THE
BILIOUS CONSTITUTION.

ALTHOUGH many authors have treated of the bilious diseases, and made many useful observations on them; yet I think Sydenham, in some particulars, excels them all: he not only brings together all the symptoms which occur in the disease, but he has a peculiar sagacity in finding out the precise method of cure which succeeds the best: by comparing both which together, he gives a specific idea of the disease, so as to distinguish it from every other, and to ascertain its genus. To prevent the possibility of mistake, he also carefully distinguishes the symptoms which are essential, from those which are only accidental, to the disease. In his method of cure, he applies his attention chiefly to the essential symptoms, and pays little regard to those that are accidental, having found by experience, that they always gave way as soon as the disease was subdued. These things have made him the

best guide in every disease that fell under his observation; and therefore I will take him for my text, and make my observations upon him as I go on, endeavouring to confine myself to what I have learned from experience.

In the year 1683, there was a very severe winter in this place, and a frost, which, for violence and duration, had exceeded any thing within the memory of the oldest man living at that time: this was succeeded by a mild winter in 1684, which hardly deserved the name of winter: the consequence was, that the bilious diathesis, not being conquered as usual by the winter frost, continued all the spring 1685, increased all that summer, raged all harvest and the beginning of winter, till it was conquered in the month of January 1686, by a severe frost. In the month of February 1685, Sydenham met with a spring catarrh, which resembled the *peripneumonia notha* of the beginning of winter, in many particulars; such as, a great difficulty of breathing, a certain giddiness in the head on standing or moving the body, and an uncommon visciditv in the matter expectorated from the lungs, exactly as I have observed in many of the catarrhs of this present year, 1770, owing to the mildness of the winter. He concluded, however, that this catarrh, being a spring fever, would

would naturally go off in July as usual; but finding, contrary to his expectation, that it rather increased, and became very epidemic in September following, he called it a *new fever*; being quite different from every other catarrh he had seen before, as well as from the *peripneumonia notha*, in several particulars.

The truth is, that in London, every body lives so much on fat animal food and butter, that they carry the seeds of that yellow morbid lentor, called *bile*, always in them; and if the perspiration is stopped by any accident, particularly by damp weather, one of two things must happen; either they must have a diarrhoea, or this acrid lentor will collect in the vessels; as may be seen by the colour of the *serum*, and sometimes of the *crassamentum* of the blood taken away*.

Now,

* The *Kæuros*, or ardent fever of Hippocrates, was evidently an inflammatory fever mixed with bile. I have placed it among the inflammatory fevers, because it is more frequent here in spring than in autumn; and with us requires an high antiphlogistic regimen, and large bleeding before we dare venture to purge. An ardent fever, even in the height of the bilious constitution, requires much more bleeding than a common bilious fever; and although there is some bile mixed with it, may be said to be more inflammatory than bilious. In spring, therefore, I have called it simply *causus*; but in harvest *causus biliosus*, viz. when a bilious fever comes upon a sanguine plethoric habit: in this case, the remission

Now, although Sydenham first observed this phenomenon in the month of February 1685, yet this is not to be considered as the natural season of the bilious constitution; but is to be looked upon as an extraordinary event, arising from the uncommon warmth and damp of that particular year, and by no means the ordinary constitution of February: and if Sydenham had written the history of the catarrhs of the succeeding February 1686, after the severe frost of that winter, we should have found the scene altered; and that the *atra bilious* diathesis being subdued by the frost in December and January, the catarrhs of February had resumed their former *genus*, and had vanished in July, as usual.

I therefore place the natural commencement of the true bilious constitution in August, according to the rule of Hippocrates, who observed, that summer bred bile, which appeared in autumn; and harvest bred black bile, which appeared in winter: and this will be found invariably the case in all European countries where the climate is regular; or, perhaps, where the inhabitants indulge less in animal food than we do in this country; particularly in and about London.

is perceptible after one proper bleeding; but the true, ardent, inflammatory fever does not remit so easily.

The

The first appearance of this constitution is the *cholera morbus*, which Sydenham, cap. ii. art. 12. says, “ is of the number
“ of autumnal epidemics, rises in August,
“ and finishes its course in a month,
“ though there are other diseases which
“ arise at the same time, and run on to
“ the winter ; as, autumnal dysenteries,
“ tertians, and quartans; all which, how-
“ ever, notwithstanding the longer or
“ shorter space they sometimes affect in a
“ few particulars, generally cease in two
“ months;” that is, some time in October, when the *atra bilis* begins to supersede the *bilis flava*. Here then we have a catalogue of the bilious diseases, or more properly of the diseases of the yellow morbid lentor, viz. the *cholera morbus*, the *autumnal fluxes*, the *autumnal tertians*, and *quartans*; to which may be added, the bilious fever, and the autumnal unformed ague, which rises out of the bilious fever, after the same manner as the spring unformed ague does out of the *synochus non putris*, and is in like manner complicated with it: Nor has this observation escaped Sydenham, cap. ii. art. 14. “ Intermit-
“ tents, says he, indeed derive their names
“ from the interval of two fits, and, by
“ this mark are sufficiently distinguished,
“ provided regard be had to the two divi-
“ sions of the year wherein they happen,

“ viz. spring and autumn; and yet, some-
 “ times fevers are of the true nature of
 “ intermittents, without any visible sign
 “ to discover them by; so, when autumnal
 “ intermittents enter and appear early, as
 “ in July (old stile) they do not presently
 “ assume their genuine form, as vernal
 “ agues generally do; but so far resemble
 “ continued fevers in all respects, as not
 “ to be distinguished without a very strict
 “ examination: but at length, when the
 “ force of the prevailing constitution is a
 “ little weakened, they appear more ge-
 “ nuine; and, at the close of autumn,
 “ quitting their disguise, plainly manifest
 “ themselves to be intermittents, either of
 “ the tertian or quartan kind, as they
 “ really were from the first; but if this
 “ be not carefully attended to, physicians
 “ will be deceived, to the disadvantage of
 “ their patients, by taking such kinds of
 “ intermittents for true continued fe-
 “ vers.”

In this article, Sydenham has given the
 true idea of the harvest intermittents;
 they are seldom single in the early season,
 but complicated with a continued fever,
 which is epidemic at that season, and is
 the Lusanne fever of Tissot, the new fever
 of Sydenham, and that which we com-
 monly call the bilious fever; I will, there-
 fore,

fore, consider it, first single, and then complicated with an ague.

The most common symptoms of a bilious fever, according to Sydenham, are in number twelve; of which seven are essential to it, and five accidental: I shall transcribe them one by one from Sydenham, and add a few remarks on each.

SYMPT. I. "*Intervals of heat and cold succeeding each other.*" This is common in many fevers, especially such as are accompanied with crudities in the stomach: we frequently see it before the operation of a common vomit, even when there is no fever.

SYMPT. II. "*Frequently a pain in the head and limbs:*" To which he might have added the back and loins, and all the symptoms already given, of turgid matter in the first passages; particularly of yellow bile, quoted from Hippocrates in the *synochus non putris*.

SYMPT. III. "*A pulse not unlike that of a healthy person.*" This is to be understood at the very beginning only, or more properly during the *terrentia febris*; for as soon as the true rigour comes on, and the stated fever begins, the pulse becomes quick; and, if the proper evacuations are neglected, it soon exceeds in quickness that of inflammatory fevers.

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SYMPT. IV. “ *The blood commonly resembles pleuritic blood.*” This depends greatly upon the temperament of the sick, and the degree of frost, or the point from which the wind blows. In the very beginning the blood is not very fizy; after some days it becomes very fizy for most part, and the buff resembles old or yellow tallow; the *serum* is always yellow; but towards the end of the fever, the blood becomes dissolved.

SYMPT. V. “ *A cough mostly, which, with the other symptoms of a mild peripneumony, goes off so much the sooner, as the disease comes on at the greater distance from winter.*” This is altogether true; for the cough is scarce ever in August, not common in September, but frequent in October, and very obstinate in November, so as rarely to go off without a concocted spitting; as shall be explained in its place.

SYMPT. VI. “ *Sometimes a pain in the neck and throat in the beginning of the illness, but not so violent as in a quincy.*” And is frequently mistaken for a rheumatic complaint.

SYMPT. VII. “ *Though the fever be continual, yet it often increases towards night, as if it were a quotidian, or double tertian.*” This remission is common even from the beginning, and continues through-

throughout, if properly treated. It is a bad sign when the remission is lost, and a good one when it is lengthened: when the fever is complicated with an ague, the remissions are more perfect; and when the exacerbations begin with chilliness and rigour, it may be expected to form soon, especially if there are, at the same time, signs of coction; particularly a yellow or lateritious sediment in the water, which is more common in this, than any other class of fevers.

SYMPT. VIII. *"There is so great a tendency to a frenzy, that it frequently comes on spontaneously of a sudden; but rises not to such a height as it does in the small-pox, and other fevers, the patient being rather calmly than furiously delirious, and talking wildly between whiles. This symptom is greatly increased by lying always in bed, though with few cloaths on; for the fever being thereby translated to the head, a comma or frenzy soon succeeds."*

When this fever is properly treated from the beginning, the delirium is not very frequent nor troublesome to remove; but if sweating is much encouraged, especially in the beginning, and previous to the other evacuations, the head soon becomes affected. The advantages derived from an erect posture in cases attended with a frenzy, I have experienced very often. Some years ago,

ago, I attended a stout young man, apprentice of Messrs. W.'s and G. in a very bad small-pox; the delirium was so great, that it was found necessary to put on a strait waistcoat long enough to confine both hands and feet: the advantage of an erect posture was soon perceived; for the frenzy, which had been suspended by that position, always returned with great violence in an hour after he was laid in bed; to prevent which, he was kept partly in a direct posture day and night, by straps passed under his arms, and made fast to the tester of the bed. This expedient succeeded, and was attended with other advantages; for the patient took his drink more plentifully, expectorated more easily, and the gangrene on the *ossa ilii et sacrum*, healed more kindly.

SYMPT. IX. "*Petechiæ or eruptions frequently appear, occasioned by an unseasonable use of cordials and a hot regimen; and in young persons of a warm constitution, purple spots, which are certain signs of a considerable inflammation, both in this, and in all other kinds of acute diseases.*"

I have frequently seen petechial eruptions and purple spots in scorbutic people, without any fever; and in these cases, the blood was rather dissolved than sily. I hardly remember to have met with either
in

in a true inflammation; and indeed, they are not common from Christmas to July; but from July to October, inclusive, they are very frequent; particularly during the dog-days. It is no more than some blood forced through the relaxed capillary arteries, and extravasated in the cellular membrane. To produce them, therefore, the blood must greatly exceed in quantity, or must be greatly dissolved, or must be pushed with violent impetuosity, or the capillary arteries much relaxed. Now, this season of the year is apt to produce all these changes in the body; the continued heat relaxes the capillaries, expands the blood, and diminishes its density; at the same time that the salts and oils become exalted and acrid, so as to stimulate the heart to propel the blood with too much violence: here then is a *plethora ad vires*, or a redundancy of thin acrid blood, and relaxed solids.

To remedy all these, the following intentions are indicated: first, To diminish the superfluous quantity of blood, that the weak vessels may more easily dispose of the remainder, and repeat this bleeding till a proper *equilibrium* is restored between the containing vessels, and the fluids which are contained: secondly, To correct and evacuate the irritating cause with all convenient speed, so as to procure tranquillity to
the

the heart and arteries ; by which means the motion of the blood will be moderated, and the absorption of that which is extravasated will be accelerated : thirdly, To procure rest and quiet to the mind and body, till Nature has recovered herself : fourthly, To restore the texture of the blood by remedies proper for that purpose : and, fifthly, To brace the vascular system so as to enable the vessels to perform their natural functions ; after which it may reasonably be expected, that Nature will perfect a crisis in due time ; as was the case of Miss Cope. Vide the Putrid Fever.

To answer these intentions regularly, even in putrid and bilious fevers, experience has taught us the salutary effects of bleeding more or less according to the exigency of the case ; but we certainly ought to proceed very gradually, and consider well the circumstances of the sick, the degree of the pulse, and the quantity of the extravasations : although some bleeding may be necessary, yet we ought, in putrid and bilious fevers, to look upon it as a palliative remedy, intended only to procure a respite till we can reduce the pulse, and promote the absorption by the other intentions, which are more radically salutary in these distempers that arise from acrid and dissolved blood, or weak vessels.

To answer the second intention, we know, that the irritating cause is the yellow morbid lentor, which cannot be evacuated but by vomiting and purging, nor corrected but by fruit, acids, cold liquors, and current air; that it is exasperated and detained in the body by opiates, astringents, and every thing that increases heat and motion.

The third intention, of rest and quiet, regards not only the body but the mind; and for this reason only, we are sometimes forced to have recourse to opiates, as the less of two evils, when we would not otherwise use them. All other anodynes ought to be first attempted, and every object of sense removed: however, if we are driven by any unlucky necessity to use opiates, we ought always to remember, that it stops purging, and exasperates the acrimony of bile; let the opiate, therefore, be of the most cooling kind, and the dose small; nor let it ever be repeated except in cases of necessity: I know no medicine, the administration of which requires so perfect a knowledge of the constitution of the patient, as opium.

The fourth intention, or restoring the *crasis* of the blood, has been considered in the putrid constitution; it consists chiefly in a diet of fruit, bread, vegetables, and vegetable acids; to which mineral acids may

may be added in cases of extremity, after the necessary evacuations have been made, as has been said in the putrid fever, of which petechiæ are a symptom.

The fifth intention is of the same nature, and is best effected by cold liquors, fresh air, erect posture, wine, and even bark seasonably given, and properly proportioned. I like the idea of Macbride very well, and make no doubt but the gas that arises from vegetable substances, even in digestion, may prove very comfortable to the nerves, and highly antiseptic; as we see in the cure of the sea-scurvy every day.

SYMPT. X. "*And sometimes such spots*
 "*as are termed miliary eruptions, come out*
 "*all over the body, appearing much like*
 "*the measles, only they are redder; and*
 "*when they go off, do not leave branny*
 "*scales behind them, as in that disease;*
 "*though these eruptions do sometimes come*
 "*out spontaneously, yet they are more fre-*
 "*quently driven out by the warmth of the*
 "*bed, and cordials."* There are four little eruptions common in fevers, besides petechiæ and purple spots: first, In cases attended with profuse sweats, there is a kind of rash, called *sudamina*, that goes off as soon as the body is exposed to the air: secondly, There are pimples that come out after coction in many fevers, that contain matter, and form little scabs, which
 is

is also one sign of coction : thirdly, There is the red miliary ; and, fourthly, The white miliary eruption. Miliary eruptions most certainly indicate great acrimony, and yet some are of opinion, that acrid remedies are proper in miliary fevers ; adding acrimony to acrimony, and fuel to the fire ! From all the observations I have been able to make, I find reason to conclude, that the spring fevers, ill-treated, are more liable to miliary eruptions than the bilious fevers. In the spring of 1769, I saw many ill-treated humoral fevers, and they all were attended with these eruptions ; whereas, among the number of bilious fevers ill-treated, which I saw during the succeeding autumn, only two were miliary : one was a servant maid of Mrs. F. ; the other a labouring man at Mrs. J. in Little Moorfields : it was late in the disease before I saw either of them ; however, there was strength still remaining. As these eruptions gave no relief, I directed the same treatment as if none such had appeared. The woman had a *purpura rubra* ; after twenty-one days she became very weak, and loathed every kind of nourishment, at the same time that her pulse became soft and small ; upon which she was gently purged with rhubarb, and began a small decoction of bark, with lemon-juice, which restored her appetite, and seemed to promote the coction ; however, the pulse

pulse remained quick for many days; but the other symptoms went off pretty fast. The man had a most profuse eruption of the *purpura alba*, but was not at all relieved by them; he became more costive, and of course more heavy and stupid: after a few days, the white heads disappeared, and he was seized with a difficult respiration; for which he was severely blistered: this relieved the breathing, but all the other symptoms remained: at the same time he was well supported with gruel and panada, with plenty of oxymel and white wine in his sippings. His medicine was a draught every four hours of lemon-juice, julep of camphor, and mint-water, each an half ounce, and eight grains of calx of antimony: his body was regularly kept open by clysters given occasionally, and he was kept erect in bed during the time of the remission every day. After his breathing was relieved, he was once vomited with emetic tartar *en lavage*; and this seemed to relieve his head very much, and he mended gradually afterwards. I was formerly of opinion, that the calx of antimony mixed with acids, would vomit as the tartar emetic does; but I am now sure of the contrary; because I have given much of it of late years, with great quantities both of lemon-juice and oxymel, and no such effect has followed.

SYMPT.

SYMPT. XI. "The tongue is either moist
" or dry, according to the regimen which
" has been used; when dry, it is brown
" in the middle, and white round the edges;
" but when moist, it is white and foul;"
something not unlike mustard in colour.

SYMPT. XII. "Sweat likewise depends
" upon the regimen; for, if that be over-
" heating, it is in a manner viscous, espe-
" cially about the head; and though it flows
" plentifully and universally, affords little
" relief; whence it follows, that such sweats
" are only symptomatic, not critical. The
" raising a sweat by medicine in the begin-
" ning of the distemper, ordinarily translated
" the morbid matter, if not to the head, at
" least to the limbs. But when the fever
" has seized the head, and the frenzy
" prevailed, the signs of the former vanish,
" (i. e. the sweat vanishes; the skin be-
" comes dry and hot; the mouth becomes
" parched; the tongue brown, rough, and
" hard; the bowels costive; or the stools
" are crude, black, and very offensive; the
" urine crude, and of a brownish colour)
" only the pulse remains sometimes very
" quick, and sometimes more slow; at length,
" however, when the spirits are exceed-
" ingly hurried by wrong management, the
" pulse intermits with starting of the ten-
" dons, and death soon follows." I will
give one example of most of these symp-

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toms in the case of a strong young man, porter to Mr. W. of Lad Lane, who was taken with this fever upon the fourteenth of September, but had no advice till the evening of the seventeenth, when he was blooded plentifully; the blood was very fizy, and covered with a deep yellow buff; afterwards he sweated profusely, as is common after bleeding in strong young people, if they keep warm in bed, and drink warm liquors: upon the nineteenth, the sweating went off, and a violent delirium supervened, with most of the symptoms described after sweating in No. 12. Leeches were put to his temples, and blisters to his back and head; but the frenzy increased, or rather, he became stupid, and altogether void of reason. Late at night on the nineteenth, I first saw him, and ordered the blisters to be removed; a vomit of *vin. ipecac.* ʒi. *vin. antim.* ʒss. to be given him, and afterwards a purge. By the operation of these remedies, he was much relieved the next morning, when he was put on a regimen of fruit, acids, and neutral salts; at the same time, his body was kept open to the end of the month, when the remissions became longer, the mouth moist, the pulse more slow, the delirium and miliaria went off, and he had evidently a better day and a worse, alternately: I then expected an intermittent every day, and signs of a perfect coction; which

which accordingly came on the second of October, with a strong lateritious sediment in the water, with several bilious stools, and left no complaint but weakness. This crisis had the appearance of being perfect, but two things were wanting; *first*, It did not begin by a cold fit: and, *secondly*, The skin was dry: however, as the weakness was great, it was thought proper to give him a decoction of the bark; but it had a very bad effect; for the next day all the symptoms of No. 11. and some of No. 12. returned, particularly the delirium: a dose of physic was given immediately, and the draught of lemon, camphor, and calx of antimony; the former regimen was again persisted in to the twenty-second day of the fever, and the body was kept open by clysters occasionally. The morning of the twenty-third, there came on a hiccup, which I suspected to arise from a collection in the stomach or bowels, and therefore purged him with rhubarb and cremor tartar; but the hiccup increased, and the pulse became small: to raise the pulse, a blister was put to each ankle, and the same draughts and the same regimen continued. This had the desired effect; the hiccup abated, and the pulse became steady. Things remained in this situation to the twenty-eighth day of the fever, when the hiccup returned at night worse than ever,

and seemed to threaten a gangrene; but upon comparing all the symptoms together, it appeared to arise merely from weakness, and the great quantity, perhaps, of thin acid liquors he had been taking; a blister, therefore, was put between the shoulders, and half an ounce of musk-julep was added to each draught. This had an admirable effect; the hiccup went off in ten hours, and all the symptoms abated. Then he began to relish food, cold small-beer, and hard cyder*; upon which we left off medicine. Upon the thirty-fourth day, there came on a natural purging of bilious matter, with a soft damp skin, during the night in bed. This purging lasted four days, and carried off every symptom except a little whiteness, or rather dryness of the tongue; nor was the pulse of its natural slowness before the forty-second day. This was a true bilious *causus*.

Here, by the bye, arises a question; the bark was of great service to Mrs. F.'s maid, whereas it did great mischief in this case of Mr. W.'s porter? I think the reason very plain: the maid was naturally of a delicate make, and her juices thin and acrid, and her solids flaccid and soft; both which were corrected by the bark: but the porter

* This man was originally from the county of Devon, and had been accustomed to drink cyder.

was in a different state; his blood was naturally fizy, and his solids firm and elastic; his weakness was the effect of great evacuation, and the long want of his usual diet, and might have been better remedied by regimen than by bark; nay, mineral acids, or wine, would have done less mischief.

From this case, and many others which I have attended, I am certain, that no profuse sweating is proper in this fever before the bilious matter is concocted, and in a great measure expelled; but that purging does service even before there are any signs of real coction; as we shall see in the method of cure, in which I shall again take Sydenham for my guide, in the same order he has put it, *viz. Schedula Monitoria*, art. 7. * “ *I first direct ten ounces of blood to be taken away; and though the blood in this fever frequently resembles the blood in a pleurisy, yet it does not well bear repeated bleeding; but if a difficulty of breathing, a violent pain in the head, in coughing, and other symptoms of this kind shew the great tendency of this disease to a bastard peripneumony, bleeding and*

* I have already said, that the time of the hot fit is the most proper for bleeding; because one can then judge best of the degree of the pulse; but vomits and purges answer best during the remission, when the matter, concocted by the fever during the night, may be evacuated by medicine in the morning.

" purging are to be repeated, till these symptoms entirely disappear ; and this I would have carefully noted."

Upon this passage it is necessary to remark, that the fever in question is of three sorts ; first, It is sometimes simply bilious ; secondly, It is bilious and inflammatory ; and, thirdly, It is bilious, inflammatory, and peripneumonic. These complications arise partly from the natural constitution of the sick ; partly from the winds and weather ; and partly from the season of the year. Thus in the month of August and part of September, when the weather is warm, and the wind westerly, there seldom happens much inflammation, even in plethoric habits, and then repeated bleeding is not necessary ; nay, it is sometimes improper to bleed at all : but when the nights lengthen, and the winds get into the north and north-east, then bleeding becomes more necessary, and repeated bleeding is proper in some plethoric habits, till the symptoms of inflammation are pretty much reduced ; especially when a dry hard cough is superadded. But in general, in plethoric or sanguine habits, as I have said elsewhere, one bleeding, according to the strength of the patient, takes off spasm, and greatly facilitates the operation of emetics and cathartics ; nor have I ever seen a bilious fever go off more kindly than when the patient has been once properly

properly blooded in the beginning. If the patient is young and very plethoric, the physician may be deceived by the smallness of the pulse; because oppression is attended with this symptom in common with inanition: the natural habit of the patient, therefore, is to be considered and compared with the other symptoms; and the effect of the bleeding will be found by the pulse, during the operation. “ I remember, (says Sydenham, *Sched. Monit.* art. 42.) to have met with a remarkable instance of this several years ago, in a young man I then attended; for though he seemed expiring, yet the outward parts felt so cool, that I could not persuade the attendants he had a fever, which could not disengage and shew itself clearly, because the vessels were so full as to obstruct the motion of the blood. However, I said, that they would soon find the fever rise high enough upon bleeding him; accordingly, after taking away a large quantity of blood, as violent a fever appeared as ever I met with, and did not go off till bleeding had been used three or four times.”

Cases similar to this are to be met with every day; and surely vomiting or purging before bleeding would not have succeeded; and a hot cordial in such a case, would have been equivalent to poison.

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Art. 8. *"In the evening I lay a blister between the shoulders, and next morning exhibit a lenient potion: I order this draught to be repeated every other day, till three have been taken, and an opiate to be given at bed-time after the operation. This I do to prevent the comma from coming on from the disturbance of the spirits, which purging often occasions in fevers; as was the case of the comatous fever of 1673, art. 9. But, on the intermediate days of purging, an opiate must not be given at bed-time, for fear of checking the operation of the purge to be given the next day."*

I do not know any worse practice than blistering in the beginning of fevers; particularly the putrid and bilious: blisters increase the inflammation, and greatly exasperate the acrimony of the morbid matter; in the early part of the bilious constitution, they promote the propensity to symptomatic sweats, and hinder the excretion by the bowels: but when the constitution comes nearer the atra bilious, and is complicated with a dry hard cough, which does not yield to bleeding and repeated vomiting and purging, then blisters are very serviceable if applied after the fever has abated. Now, by the abatement of the fever, I do not mean that remission which happens every day, but the decrease
of

of all the symptoms, which happens after the inflammation has been subdued, and the acrid lentor partly evacuated or corrected. Sydenham has all along considered this fever as of kin to the *peripneumonia notha*, which, however, is not the case till late in the season; for the coughs, and pains in the neck and throat, which accompany this fever in August and September, yield to the common method, and go off after the state; but in the later season, the cough constitutes an essential part of the disease; and there is a certain part of the morbid matter which will not go off by the bowels, but must pass through the lungs or skin; and this is the reason why the erysipelas, and eruptions of that nature are so frequent at this part of the season, to which great attention must be paid; we shall otherwise frequently bring on the comatous fever of Sydenham; for the course of Nature being disturbed, the morbid matter will fall upon the head, and become very dangerous. Almost the same doctrine may be applied to opiates, which are scarcely ever necessary in the beginning; and yet, towards the conclusion, when a diaphoresis becomes necessary, they may be preferable to all other remedies. To illustrate this matter, I shall briefly recite three cases.

CASE

C A S E I.

On the sixteenth of October 1769, I was called to see Mr. Haze of Great Marlborough Street, and found him very ill of a bad measles; at the same time his eyes were yellow, and his tongue looked as if it had been dipped in mustard; his pulse was not strong, but the cough was dry and intolerable; he frequently reached to vomit, but could bring nothing up; he had also ineffectual calls to stool: I ordered him to be plentifully bled, and a purging clyster to be given immediately after; directing at the same time, that he should drink plentifully of warm water and oxymell, to encourage the vomiting. Soon after the bleeding, he brought up a great quantity of yellow bile, and a brisk purging succeeded the clyster, which greatly abated the anxiety and threatening symptoms, both of the head and breast: on the morrow the bleeding was repeated, the purging continued, and he mended every day without any other medicine than emollients and oxymel; for the inflammation being removed by bleeding, and the bilious acrimony evacuated or corrected, the measles went off in the usual manner; and an ailment, which threatened the worst consequences in the beginning, was perfectly
6 and

and happily judged in a very few days. The first and second blood were fizy and very yellow.

C A S E II.

Upon the twenty-sixth of September, a young blooming woman was seized with the common symptoms of a bilious fever, accompanied with a considerable cough; after bleeding she was vomited, and brought up a vast quantity of bilious matter, which relieved her breast immediately; after the third purge (as Sydenham directs) all the symptoms abated, and she seemed to have a better and a worse day alternately, to the eleventh, when the catamenia returned some days sooner than the natural period. This is by some supposed to be a sign of dissolved blood; but I have frequently observed, that it is no more than a sign of coction, and often proves critical; which was the case in this instance; for the fever, being from that time left to Nature, was judged on the fourteenth day. During the whole time, she never was permitted to remain all day in bed; her drink was acid and cold; her diet was fruit, bread, and rice; and her body was opened from time to time *pro re nata*.

CASE

C A S E III.

Upon the sixteenth of October, a woman of an atra-bilious habit, was taken with the same symptoms, except the cough, which was inconsiderable; but she complained of what she called wax-kernels, very painful, on both sides of the neck. After bleeding she was vomited, and brought up some bile mixed with much tough phlegm; she then was purged, and treated exactly as the former: the first and second purges gave great relief; but as the kernels gradually dispersed, an erysipelas came out all over the face and head, of a yellowish colour, and very painful: the third purge was given on the morning of the sixth day; but instead of relief afterwards, as after the others, the pulse became more quick, and the patient became restless and unable to keep up any longer. It appeared that purging could do no more service at that time, and that Nature was disposed to carry off what remained of the disease, in a great measure, by the skin; I therefore laid a large blister on the back, and gave the following draught every six hours, adding ten drops of laudanum to the night draught:

℞ *Julep. e camphor. spir. minder. āā ʒiiij*
Aq. menth. simpl. ʒi.
Calc. antim. illot. gr. x. m. f. haust.

I also

I also ordered, that her drink should be warmed, and to give her whey made with equal parts mountain and vinegar; and that she should remain in bed all the following morning: she sweated in the night as I expected, and all the symptoms abated. Next day at noon she was shifted and taken out of bed for some hours; the draught without the opiate was continued, and an emollient clyster was injected at night: and from this time, by the help of breathing sweats every night in bed, she gradually recovered: nor was she purged till there was sediment in the water.

By the bye, this case confirms the following observation of Sydenham: "In short, " the gentle warmth of the bed, in the " night, seasonably favours the sweat, " which flows spontaneously at that time; " and for this reason, the patient should " have no more, nor thicker cloaths laid " on him than he usually had when in " health, and no heating medicines should " be given him; only, let him lie later " than ordinary the next morning, and " afterwards pursue the methods of cure " above-delivered *."

Sydenham

* That is, purging *pro re nata*, and diluting with acid liquors in the intermediate days; for when the nightly sweats become salutary, the frequent purging becomes less necessary; and a clyster, for most part, will

Sydenham then proceeds, art. 13, 14, and 15. to recommend fruit and vegetables for diet, cold small beer, and acid juleps for drink, sitting up a-days, especially if there are petechiæ, coma, or frenzy. Here ends his general method of conducting this fever; by which he was able to bring it to a regular intermittent, or carry it quite off, if there was no complication or particularity in the habit of the sick; without any cordial or heating medicine, except a little wine towards the conclusion. It is indeed true, that some weak people of the *mobile genus nervosum*, require something cordial after evacuations; and in such cases, opium is the most speedy and certain; but care should be taken that all the inflammatory part of the disease be first removed, otherwise great mischief will ensue. I always attempt to remove these nervous symptoms of spasm or weakness, by a little wine or mending the diet, and find that I succeed better than formerly, when I used opiates more freely. Rough cyder, or beer with a toast and nutmeg, have frequently an-

will do the needful, till the signs of coction and sediment in the water come on: after which a dose of rhubarb does service; for although rhubarb does not evacuate bile in the beginning; yet, after the fever is over, and the patient is reduced by frequent purging and low diet, rhubarb becomes a very proper remedy, and restores the appetite as well as the digestion.

swered

swered my purpose. The mineral acids are sometimes used; but I do not think them necessary unless there are signs of dissolved blood or petechiæ; for although the bilious fever is of the same genus with the putrid fever, yet in general it does not require such strong antiseptics; and as the bilious lentor is frequently a long time of ouzing out of the constitution, all astringents disagree with it, till the whole is evacuated. I find the saponaceous acids that have an opening quality, answer better; such as, oxymel, tamarinds, pruinis, ripe fruit, and the like, to which the neutral purging salts must now and then be added. I think Sydenham's objection to the vitriolic acid well-founded, *viz.* its stypticity; nay, the genuine spirits of sea-salt, though much less styptic, is seldom necessary. I find lemon-juice an excellent cordial in this fever.

In the putrid fever, even in this country, but still more in the hot climates, it is absolutely necessary to give bark in many cases, to prevent the dissolution of the blood; but this practice is seldom necessary here in simple bilious fevers; on the contrary, I have seen great mischief done by it; which confirms what Sydenham has said in art. 23. *L. c. viz.* " We have already observed, that this fever in the preceding, but especially in the current
" year,

“ year, increased every day towards night,
“ when a fit came on like that of an inter-
“ mittent; the physicians, therefore, who
“ had learned from experience, that all
“ such fevers as did in the least intermit,
“ and those frequently which did not,
“ throughout the course of the years from
“ 1677 to the beginning of the year 1685,
“ certainly yielded to the Peruvian bark,
“ treated this fever with the same medi-
“ cine. But this procedure, however ra-
“ tional, did not succeed so well as in the
“ foregoing years; for, having made the
“ strictest enquiry I could into this matter,
“ I found, that though the bark was given
“ in great plenty, yet it so seldom cured
“ the distemper, that I should rather ascribe
“ the patient’s recovery to some happy
“ termination of the disease, than to the
“ efficacy of the medicine; so entirely it
“ seemed to have lost the effectual curative
“ virtue it was possessed of in the years
“ above specified; at least, in respect of the
“ fever under consideration; which re-
“ sembles a quotidian: but in a genuine ter-
“ tian or an intermittent, that comes every
“ other day, the bark does as much good
“ now as it ever did. Hence it clearly
“ follows, that this fever totally differs
“ from the fevers of the preceding consti-
“ tutions, inasmuch as the bark avails not
“ at all now; and that it is increased by
“ wine,

“ wine, cordials, and other heating things;
“ all which agreed formerly well enough
“ with the use of the bark and the fe-
“ ver itself,” after a true intermission.
I wish the attention may be paid to this article that it deserves: the bilious fever will never agree with bark before the morbid matter has had a proper time to ouze out of the habit; and then only as a tonic medicine in case of weakness, and not a febrifuge, except when it comes to a formed ague; so that the bark may be said to cure, not the bilious fever, but the ague, which, perhaps, was complicated with it from the beginning, but did not manifest itself till the bile was conquered or expelled.

In art. 24, 25, 26, 27, and 28. this great master gives his idea of the dysentery of this constitution; and in art. 29. of the same complaint turned into an inflammation of the bowels by bad management. Art. 30. contains his idea of the method of curing it, and the aphthæ; all which I have mentioned elsewhere. See the *synochus putris*.

Art. 35. “ *But to return to the fever*
“ *under consideration, viz. that of the pre-*
“ *sent constitution, it must be carefully ob-*
“ *served in this kind of fever, in the same*
“ *manner as in the rheumatism, and several*
“ *other distempers, only curable by evacua-*
B b “ *tions;*

" tions; that if we obstinately persist in the
 " use of the above evacuations till all the
 " symptoms go quite off, the disease will
 " often prove fatal: for it is not uncommon
 " to find some slight symptoms remain a
 " while, even after the disorder vanishes,
 " which notwithstanding, does not endanger
 " a relapse, inasmuch as they go off sponta-
 " neously by degrees, as the patient reco-
 " vers; in effect these symptoms are often
 " nothing more than the genuine product of
 " the repeated evacuations, by which the
 " physician endeavoured to cure the disease,
 " and proceed partly from the emptiness oc-
 " casioned by the patient's abstaining from
 " his common food and liquors; all which,
 " when they affect such subjects as are
 " much debilitated, and in a manner worn out,
 " give rise to vapours, &c. For this reason,
 " after using such evacuations as are neces-
 " sary to remove the disease, a judicious phy-
 " sician ought to forbear the unreasonable use
 " thereof, and wait a while to see what
 " time will effect, which frequently proves
 " the best physician in conquering these slight
 " symptoms; and I have indeed often known
 " them go off, in the declension of this dis-
 " ease, without any thing more than an
 " opiate taken two or three nights run-
 " ning."

This requires no explanation, and yet
 it is frequently not adverted to. I have
 heard

heard of cases where bleeding, under which the patient manifestly sunk, has been repeated till the day of his death; for no reason but because the blood taken was fizy in the basin. This is what people boast of, and call by the name of *bold practice*; but it is by no means the practice of physic, nor consonant to the true idea even of the most inveterate inflammation. The same is true of purging in bilious fevers.

Art. 36. " *The method just recommended*
" *is the best I ever tried in curing this*
" *fever, and if it fails of effectually re-*
" *moving it, at least it brings it to an*
" *intermittent, and then it always yields to*
" *the bark; but as purging, as it is here di-*
" *rected, in order to cure this fever, may*
" *perhaps seem, to some persons, detrimental,*
" *I assert from experience, that nothing*
" *cools so much, and so surely, as purging*
" *after bleeding, which should be first used*
" *in all cases; for though a purge, whilst*
" *it operates, may for the present raise a*
" *greater commotion in the blood and juices*
" *than there was before, and of course in-*
" *crease the fever; yet that mischief will*
" *be much overbalanced by the immediate*
" *subsequent benefit: for experience shews,*
" *that purging after bleeding, checks a fe-*
" *ver better than any remedy whatso-*
" *ever, inasmuch as it carries off the foul*
" *humours*

“ humours whence the fever originally
 “ proceeded, which, supposing them not to
 “ have been vitiated before, are at length
 “ inflamed and thickened by the heat of
 “ the fever, and so contribute to make it
 “ more lasting.”

With regard to purging, I do not find, after bleeding, that the cooling soft medicines, which alone are necessary in this fever, ever occasioned any great degree of ferment; nor do I find it necessary to administer any opiate after them. They are much more effectual after a vomit has first been given; and indeed, I am surprised that Sydenham has not mentioned the vomit in this fever, in which it is as necessary as in the *synochus non putris*, or *putris*; nay, I have found it necessary to repeat the vomit more than once, and seen very good effects from it; although, for most part, one vomit may suffice: after bleeding immediately, or when the remission comes on, which is the proper time for it, the purging apozem may be given in a few hours after the vomit *. I have

* When the fever runs very high in the beginning, one can hardly perceive a true remission: Here we are obliged to take Celsus's rule, who says, “ *Et continua quoque febris habet tempora, quibus, etsi non remittit, non tamen crescit; est que hoc, ut n n optimum, sic satis tamen secundum remediis temjus.*” After bleeding there is an abatement of the pulse, then the vomit ought

have also kept up a daily, constant purging in this fever, like an artificial diarrhoea; but this did not succeed so well as purging *pro re nata*, after the manner recommended by Sydenham, *i. e.* every second or third day.

I shall here give one other quotation from the same Author, in which he gives some account of the *terrentia* of this fever, to which may be added all these of the *cholera morbus* mentioned above in its place, at the end of the *synochus putris*.

Art. 24. "It is further to be noted, that
 "this fever, throughout the summer, did
 "often shew itself, not so much by the
 "distinguishing signs of a fever, as by grip-
 "ings, sometimes with, and sometimes
 "without a purging: the fever, how-
 "ever, of this constitution, actually subsided
 "under these appearances, and was fre-
 "quently accompanied with vomiting after
 "meals. These symptoms must therefore be
 "treated in the same manner as if the
 "fever had appeared in its own shape;
 "and that with respect both to bleeding
 "and purging."

ought to be given, and the purge during the next following remission, which commonly happens in the forenoon. But in that species called *causus biliosus*, or ardent bilious fever, it may be necessary to bleed a second time, before the emetic can be given with advantage and propriety.

For most part, in the summer season, and when there is no fever, the bleeding is not necessary: what I find most effectual, is a vomit, one or two purges, and abstaining some days from animal food; to eat a good mess of currants before meals, and drink a glass of cold water after them. It is also advisable to refrain from wine till the symptoms are quite gone off; and by these means, the bilious, or putrid fevers of summer, are easily prevented*.

If the bilious fever is thus treated, one of two things will happen, it will go off gradually, or come to an intermittent. The signs of intermission may be seen on or before the eleventh day, but at any rate, by the fourteenth; and this is what is meant by an unformed harvest ague. The bilious fever, with which the ague has been complicated from the beginning, now begins to subside, and the ague begins to manifest itself: First, Any good observer will perceive, that the sick has a bad day and a worse alternately, like a double tertian; or two bad days together, and a better day, then two bad days again, like a double quartan. The knowledge of these particulars will prevent the physician from being over officious, at this time, with much evacuation by bleeding, or even purging, as

* This was the case of Mr. F. October 1st, 1770.

in the former part of the fever ; but endeavour to obtain his purpose by diet : the fever is now gradually tending to an ague, and much bleeding or purging will hinder it from forming : Secondly, After this, the exacerbations begin by chilliness and a sense of cold, particularly in the legs. This will frequently last an hour or two, and then be succeeded by a considerable degree of heat : this heat will remain, perhaps, all night, but will subside towards morning, and be succeeded by some bilious stools, high-coloured water, and, perhaps, some moisture on the skin. If the stools are plentiful, the relief will be considerable ; but there never is a real intermission, or *apyrexia* between the fits, unless the skin becomes damp and soft, even if there should be sediment in the water. Herein consists the great difference between the putrid and the bilious fever ; the putrid fever, well-treated from the beginning, frequently goes quite off by vomiting and purging alone ; after which the water becomes hypostatic, the mouth moist and clean, the pulse moderate, and the flesh cool, without any remarkable moisture on the skin, or the least appearance of an intermission, or return of exacerbation after these appearances, if some mischief is not done by bad management : but it is not so with the bilious fever ; it resembles intermittents

much more, and never goes quite off till the skin becomes soft and moist; nay, sometimes a true critical sweat has been seen in the end of a bilious fever treated solely by vomiting, purging, and acids, from beginning to end*. Although the symptomatical sweats in the beginning afforded no relief, and therefore did not deserve to be encouraged; yet the night sweats, after the fever begins to decline, are very serviceable, and may be a little promoted by remaining an hour or two longer in bed after taking some warm liquor, like an infusion of veronica, or elder flowers acidulated with oxymel. In some bilious fevers, after long and frequent purging, the skin becomes very hard and dry, which always indicates an imperfect crisis, and tedious illness. I have, in such cases, seen good effects from bathing the hands and feet in warm water, and anointing them afterwards with oil, after the manner of the ancients; because I observed, that warm water relaxed and softened the skin during the operation of bathing, but that the harshness and driness soon returned again, unless the skin was anointed properly with a little oil. This is the period of the fever in which Sydenham recommends the opiate as a restorative, *i. e.*

* Case of Mr. Taylor in Whalebone Court, Bell Alley.

after

after the fourteenth day: for, when he mentions an opiate in the beginning, he only means it as an antispasmodic, to allay the flurry occasioned by the purge; which, however, I do not find necessary. But when the fever has lasted long, and the patient has been much exhausted by evacuation and low diet, a few drops of the *tinctura thebaica* added to the night draughts, has had the effect of quieting the spirits, and promoting a gentle diaphoreses; particularly when joined to camphor, lemon-juice, and calx of antimony.

Sometimes the fever will be carried quite off gradually after this manner; nor ought any purge to be given under these circumstances, till there is sediment in the water, and then rhubarb is sufficient; which medicine cannot be depended on as a purge in the early part of the bilious fevers or fluxes. At other times, it will terminate in a formed ague, and then may be conducted as has been already observed.

In London, however, agues are not so frequent as in many other countries; in one season I have seen here sixty bilious fevers, of which four only were complicated with an ague; but after the month of October, when the bilious morbid lentor becomes very viscid, agues are more frequent.

At

At this season also, the erysipelas of the harvest season is frequent ; so that I am in doubt whether to place it among the bilious or the atra bilious diseases : be that as it may, it differs from the spring erysipelas in many particulars ; first, It is not of such a bright red colour, but rather yellow or dun colour : That species called the *zona*, or shingles, is more frequent at this season ; the pain is intolerable, and does not yield to bleeding so kindly as in spring ; nor does it bear so frequent nor so plentiful bleeding : thirdly, It bears purging better and earlier than the spring erysipelas ; fourthly, It easily comes to a gangrene if the purging is neglected ; and after the third day of the eruption, it requires much the same treatment with the bilious fever. I treated an erysipelas fever in Mrs. W. an elderly gentlewoman, lately, after this manner, and it went off very kindly, although the phlegmonoides covered the whole ankle, the pain was intolerable and the appearance very threatening. A solution of camphor with gum arabic in rose water, applied by way of fomentation, eased the pain better than a decoction of the bark : lastly, It requires acids, and the diaphoretics do not agree with it after the third day of the eruption ; but an antiseptic diet throughout. As for sudorifics, I never have ventured upon them in any
consider-

considerable quantity during the course of bilious diseases; and am apt to think much mischief has been done by them. If I can judge from what I have perceived in some cases where they have been administered by others, I must confess, that the anomalous and malignant symptoms, which I have seen in bilious fevers, were chiefly owing to this species of bad practice, more than to any real malignity in the distemper. My present purpose is only to give a just idea of this constitution when Nature is properly assisted, or at least not interrupted. I may, perhaps, on some future occasion, give an account of the varieties which I have seen in this distemper, when rashly treated by ignorant people, or when the timely evacuations have been too long neglected.

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TO form a true idea of the various effects of this morbid lentor, it is necessary to consider the ailments that arise at this season of the year regularly and invariably; that is, some time in October or the beginning of November, sooner or later, according to the change that happens in the sensible qualities of the air. Fevers are, at this season tedious, unless they are attended with an erysipelas, or intermittent; both which are more frequent at this period, than at any other from July to Christmas, inclusive: This may be called the end of the bilious constitution; for soon after, these complaints begin, which the ancients have ascribed to the *humor atrabiliaris* or *succus melancholicus*; that is, the yellow morbid lentor of the harvest, now become more tenacious and dark coloured. People complain that they are not well, but can hardly tell what they ail; they seem to labour under

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a certain oppression, languor and indigestion; disturbed sleep and low spirits; they are drowsy after their meals, but not refreshed by their sleep as usual; they make water seldom, of a deep colour, and are, for the most part, costive; they are seldom hungry, but they can eat heartily; their digestion is unpleasant, and disturbed with flatulency and great fulness of the belly, and with crude, and sometimes foetid eruptions: mean time the pulse is slow, full, and regular; the tongue not foul, except just before breakfast, and they have neither heat nor thirst; drinking wine relieves them for the time, but this relief is not lasting; for they become more heavy afterwards: others, along with some of these complaints, are troubled with a species of hoarseness and difficult breathing, hawking and spitting of thick phlegm when they rise in the morning, or at any time if they put themselves into brisk motion, so as to increase their respiration.

At the same time, gouty people complain of an *athritis vaga*, and the harbingers of a fit; people who are subject to hæmorrhoids, are now tormented with blind piles; and women are more liable to an obstruction of the menses. Some people are subject to an *herpes*, *impetigo*, or *dartres*, which gave them little trouble during the summer and autumn; but now
begins

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begins to torment them with itching, so as to oblige them to tear off the skin, and give way to a brown coloured, acrid sanies, which frequently flows in great quantity, and stains their linen very much, and is often of a very offensive smell; particularly round the *pudenda* and *perineum*.

Now, as all these symptoms or *terrentia* come together, there is reason to conclude, that they arise from the same, or a similar morbid lentor; but determined by Nature upon different organs, according to the various constitutions of the parties affected; so that the same change of season and atra bilious lentor which occasion the *morbus hypochondriacus* and *hystericus cum materia* in one, may occasion the *peripneumonia notha* in another, and so forth. But although the causes may be the same, yet as the diseases are partly different, they may require some difference in the method of cure, according to the organs affected, and the way by which Nature chuses to relieve herself. “ *Illud quoque perpetuum est in omnibus morbis, ubi ab inferiore parte purgandus aliquis est, ventrem ejus ante solvendum esse; ubi a superiore, comprimendum.*” P. 154. l. 34. *Cels.*

I shall divide this constitution into two parts; first, The *morbus hypochondriacus*, and *hystericus cum materia*, or *melancholia* of the ancients: and, secondly, The *peripneumonia*

neumonia nottha of Sydenham; because these two are the most considerable diseases of this constitution, and require some difference in the treatment of them: as for the gout, obstructed menses, piles, *impetigo*, and other diseases of the skin, they are common to both.

To come at the nature of these complaints, let us first consider the constitutions most liable to them, and in this we shall find, that these two diseases agree in several particulars; they commonly affect people about the middle of life, but who have not lost their vigour; who have had good appetites, and were eaters of animal food, fat, and butter, or drinkers of spirituous or fomented liquors; such as are naturally strong and healthy, and formerly subject to inflammatory disorders; who are become inactive, and do not take all the exercise which their diet and constitution require.

But there are some particulars in which they differ, *viz.* the *hypochondria* affects chiefly those who are tall, raw-boned, dark complexioned, or very black or red-haired, hollow-eyed, and dry or harsh skinned, with a full, slow pulse; of a costive habit, and make water seldom, but in a large quantity: whereas the *peripneumonia nottha* affects chiefly those who are short, purisy, fat, thick-necked, and big-bellied; of a fair and ruddy complexion; soft skin,
and

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and prominent eyes; a regular pulse, rather quick, and moist palms; and indulge in spirituous or fermented liquors.

The gout and piles are indeed common to both, and of great service to either; not that a fit of gout or piles will carry off the whole complaint, but either will make the cure more easy, and the ailment much shorter: in all the people subject to these evacuations, it is a sign of crudity when they do not form, and denotes some dangerous derangement in the constitution: on the other hand, the formation of the gout or piles is a sign of coction: after which, the water becomes muddy, and the other secretions and excretions are better performed. By soft purges after a fit of gout or piles, I frequently see the pitchy stools, exactly like what comes away when the *morbus hypochondriacus* begins to subside; and I find the same aperient medicines, the same diet *ex media materia*, the same walking and riding, the same sea-drinking and bathing, agree with them all. And here I do declare what I have seen, without any prejudice, as far as I am able to judge of myself. I saw a bilious fever ill-treated, bring on a *melancholia* of the most serious kind. I have frequently seen a *peripneumonia notha* ill-treated in the month of November, bring on an *arthritidis vaga* in the month of February following. The
piles

piles cannot arise from any other cause than obstructed bowels, and cannot be cured by any other remedies than deobstruents and gentle purges.

Every body who has considered practical authors, must remember, that piles repelled, occasion obstructed bowels, and symptoms of the *hypochondria*, which go off if the piles return and discharge plentifully. The gout repelled, frequently seizes the lungs or bowels, and it is generally difficult to relieve those parts, till the *arthritis* returns; and *vice versa*, if the critical discharges of the lungs or bowels are unseasonably stopt, piles, or arthritic pains, or both, are the certain consequences, unless a fever is brought on; in which case, indeed, Nature brings the conflict to a more speedy though dangerous decision. What wonder then, that the gout, piles, hypochondria, dropical swellings, and sudden deaths, are so sensibly increased of late years in and about this metropolis! I have observed also, that our young people, so long as they are lively, and take little sleep and much exercise, may eat or drink what they please; the worst that can happen is a simple inflammation, which is soon removed by seasonable bleeding, purging, and abstinence; but as soon as they begin to indulge, and become lazy and inactive, they grow fat and bloated, after

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which they contract diseases; so that the decline of life, according to the present system of living in this city, is truly formidable. If any man had influence enough to destroy the spirit of gaming among the great, and drinking among the poor, what a glorious race of beautiful people should we see in this noble, happy island!

But to return to the *morbis hypochondriacus* or *hystericus*; the great mischief has been occasioned by confounding this species of an atrabilious nature, and consequently *cum materia*, with the other species, called *sine materia*, arising from a *mobile genus nervosum*, or ill conformation of the brain or nerves, too easily, or too violently moved by the affections of the mind; for by mistaking the effect for the cause, nervous medicines have been employed where deobstruents were required. To prevent this fatal mistake, we must carefully examine the origin and progress of the distemper, as it appears every year in this place, where it is very frequent, and what happens when the ailment runs its natural course without interruption.

The first symptom is want of appetite, and yet when meal-time comes, the patient can eat pretty well, although without hunger; soon after eating, an uneasy sensation, and a degree of fulness and flatulence, is felt in the bowels; which, if it produces

produces gripes and purging, works off every two or three days, and the complaint goes no further; and it is surprising how many years some people drag on after this manner: but if no purging stools succeed the fulness and weight in the bowels, the ailment goes on, the sleep becomes disturbed, and an uncommon heaviness follows; the pulse becomes slow, and the colour of the eyes changes.

Women who are thus affected, suffer by obstruction, and frequently have recourse to heating *emenagoges* for present relief, which, in the end, exasperate all the symptoms; whereas, if nothing is done but the diet reduced to what is aperient and of easy digestion, (*ex media materia*, as Celsus calls it) and the quantity of exercise is gradually increased, the whole morbid lentor is concocted and evacuated in many people, in the space of forty days.

But if these precautions are neglected, and the *origo mali* is suffered to accumulate, then comes on a *mæstitia sine causa*, and such a train of symptoms, and so great a degree of timidity, that the patients have, or say they have, every complaint and pain which the body can suffer. This *mæstitia sine causa* operates differently on different subjects; in some it produces a dread and fear of death, and in others a

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desire of dying, or rather a *tedium vite*; both equally absurd and ridiculous.

The next stage of this dreadful distemper is, a surprising degree of insensibility, so that the sick are little affected by heat, cold, hunger, pain, or pleasure; they become sulky, obstinate, and sometimes mute by the two or three months together.

The last symptom is a real *delirium sine febre*, with all the concomitants, which are too well known; so that the whole disease may be divided into five stages, of which the first is want of appetite and crudities in the bowels: the second, disturbed sleep and obstructed bowels: the third, the *mæstitia sine causa*: the fourth is the state of insensibility: and the fifth, the *delirium sine febre*, so well painted by *Areteus, De Caus. et Sign. Morb. lib. i. cap. v. p. 30.*

In every stage of this distemper, it has been observed, that Nature has frequently relieved itself by one or more of the four following operations, of which the first is the most common, as well as the most effectual; a diarrhœa, or purging of what are called pitchy stools, being of a coffee colour, bulky, and tenacious: secondly, A considerable discharge of blood by the hæmorrhoids or menses: thirdly, A species of herpes, impetigo, or darts: and, fourthly, A stated fever, commonly of the intermittent kind, and even a quartan:
but

but notwithstanding other evacuations, the crisis is not complete till the pitchy stools begin to flow; and then gentle physic will purge briskly, which, in the beginning of the disease, was not sufficient to procure one motion.

I once saw this disease come on after an uncommon manner: a strong, young, healthy man, of a true atra bilious habit, was seized with a bilious fever of the harvest season, for which he had been largely blooded, and treated with diaphoretics, and a succession of blisters for a considerable time; but vomiting and purging had been too much neglected; the continual sweating at last removed the quickness of his pulse, and heat of the skin; but the anxiety remained, with a want of sleep, and oppression on his spirits; musk, camphor, and opium increased these symptoms; and the pulse became so slow as to beat only forty-nine strokes in a minute: a true *melancholia* was the consequence, which went through every one of the above stages regularly, one after another.

At this time, Mussel of Berlin had just published his Medical Observations; and I put this gentleman upon his method of cure. Every day he took a considerable quantity of soluble tartar and honey; he was reduced to a vegetable diet, and all his drink was acidulated with common

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oxymel. In the beginning, we were obliged to add two ounces of manna every day to keep his body open ; but at last two drachms of soluble tartar without manna, were sufficient to procure passage. At the end of six weeks, I could perceive some abatement of the symptoms, and the pulse became more quick ; the stools also became of a darker colour ; and at the end of the ninth week, he voided pitchy stools, three or four of a day : from this time he mended so fast, that in three weeks more he was well.

In considering this case, it seemed to me, that after the vessels were emptied by bleeding, the thinner, more acrid, and volatile parts of the bilious lentor had been forced through the skin during the course of the fever, while the more viscid part had been impacted in the bowels, and produced the *succus melancholicus* ; which, however, was at last resolved by proper diet and medicine, and finally evacuated by atra bilious stools. “ *Lienosis bono tormina sunt.*” After the stools had again recovered their natural colour, he complained of great flatulence in his bowels ; which, however, was soon removed by cold bathing and riding on horseback, according to the practice of the ancients ; “ *Vehiculo sedisse, vel majus etiam equo, prodest ;*

“*deſt; neque etiam ulla res majus inteſtina*
“*confirmat.*” Celf.

The great increaſe of this complaint of late years, can eſcape no perſon who viſits the number of public and private hospitals and houſes about this city; the cauſe of which is ſimply this, Many people know the power of drugs, but very few know the nature of diſeaſes: hence ariſes the uſe of a heating regimen in biliouſ caſes; of opium and aſtringents in fluxes; of anodynes and repellents in the gout or piles; of various repellents and coſmetics in all the diſeaſes of the ſkin; and the improper and unſeaſonable uſe of the febrifuges in agues. In all theſe caſes, a phænomenon produced by the criſis, is miſtaken for the original diſeaſe, and the ſymptom for the cauſe.

The ancients, who made diſeaſes their ſtudy, knew better: “*At ſi longa triſtitia*
“*cum longo timore et vigilia eſt; atræ bilis*
“*morbis ſubeſt.*” Compare this with Hippocrates, *Aph.* ſect. vi. art. 22. In ſuch a caſe, if piles came on, they did not endeavour to repel them, but conſidered them as the beginning of a criſis: “*At*
“*varix ortus, vel per ora venarum pro-*
“*fuſio ſanguinis, vel termina, inſaniam*
“*tollit.*” Compare this with Hippocrates, *Aph.* ſect. vi. art. 14. They encouraged theſe natural diſcharges, becauſe experience

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had taught them how salutary they were, and how dangerous it was to stop them :

*“ Atque in quibusdam parum toto suppri-
 “ mitur; qui sanguinis profluvio imbecilliores
 “ non fiunt : habent enim purgationem hanc,
 “ non morbum. Ideoque curati quidam,
 “ cum sanguis exitum non haberet, inclinata
 “ in præcordia ac viscera, materia, gravif-
 “ simis morbis correpti sunt.”*

The same doctrine may be applied to the ailments of the skin ; most people of an atra bilious constitution, are subject to heats, pimples, guttæ rosaceæ, lichen, impetigo, and the like : when they are seized with any serious complaint, these eruptions dry up ; as soon as the old eruptions return, coction may be expected, and soon after an amendment : for most part, the subjects are in good health and spirits so long as these eruptions keep out. Is not this enough to make such people very careful how they treat these distempers of the skin ?

The advantages to be gained, in all this class of diseases, by an ague well-conducted, were well known to the ancients :
*“ Denique, ipsa febris, quod maxime mirum
 “ videri potest, sæpe præsideo est : nam et
 “ præcordiorum dolores, si sine inflammatione
 “ sunt, finit : et in jocinoris dolore succur-
 “ rit : et nervorum distentionem, rigoremque,
 “ si postea cepit, ex toto tollit ; et ex diffi-
 “ cultate*

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“cultate urine morbum tenuioris intestini
 “ortum, si urinam per calorem movet
 “levat.” Here is a catalogue of many
 of the symptoms of the *morbus hypochondriacus* and *hystericus*. Again, “Sed est
 “circumspecti hominis, et novare interdum,
 “et augere morbum, et febres accendere;
 “quia curationem, ubi id, quod est, non
 “recipit, potest recipere id, quod futurum
 “est.” An ague then, even a quartan
 ague, during the constitution of the *atra bilis*, ought not to be stopt, when there is
 reason to expect that it may remove so
 difficult a disease as the *morbus hypochondriacus*, so long as the strength of the pa-
 tient can be supported to bear the shock
 of the fits; and great attention should be
 paid, in such cases, to support the sick
 with proper nourishment on the interme-
 diate days, to enable him the better to bear
 the fatigue of the approaching paroxysm,
 till the desired effect can be obtained.

This intention is greatly promoted by
 exercise in the open air; by stomachic bit-
 ters with rhubarb; and even cold bathing
 will agree with some people on the inter-
 mediate days; vomits also on the well
 days, moderate the violence of the suc-
 ceeding fits, and facilitate the expulsion of
 the morbid lentor: “*Veratrum nigrum*, says
 “Celsus, aut atra bile vexatis, aut cum
 “tristitia insanientibus, aut iis, quorum
 “nervi

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"*nervi parte aliqua resoluti sunt, datur.*"

So that, according to his idea, they were to be vomited on the first day, and purged on all the next days of interval; as may be gathered from the different passages scattered in his works.

The effect of an ague in resolving indurations in the viscera of the abdomen, is truly surprising. When I was at Franeker, I remember a gentleman's servant complained of a hard lump in the left side, which seemed to be in the spleen, and I supposed he would have been called *lienofus* by Celsus; he said it was the remains of a fever, of which he had been cured about a year before. In the month of November he was taken with a fever, at that time epidemic, which soon remitted, and then intermitted; it became a double quartan, and at last a single quartan, very well formed, and quite regular: he was the patient of Dr. Coopmans, who soon perceived that the hardness of this lump diminished; after some fits, it became more moveable, and then gradually diminished after every fit. The violence of the ague also diminished, and when the lump was entirely gone, stopt, without any febrile, in the month of March following.

The atrabilarics who escape the *morbus hypochondriacus*, are subject to cholics of the same nature with the bilious cholics, or even

even the *cholera morbus*, but not quite so violent; it is, however, of longer duration, and very apt to return. I have seen this distemper treated with antispasmodics and antihysterics for years together, till the patients have been reduced to the greatest misery, and often in danger of their lives, by endeavouring to stop every purging, or effort of Nature, to relieve them. I have seen such piles brought on by such treatment, as ended in the *fistula in ano*; for which they have been cut different times; and they were at last cured, by persisting long and obstinately in a course of vegetable diet and deobstruent, soft purgatives, for many months; nay, I have now under my care a gentleman who has required two years to complete the cure, although he has used the sea-water two seasons, who never escaped a week without a return, till within these three last months.

In every species of the atra bilious distempers, great attention must be paid to the diet, without which no course of medicine can prevail; and this is the most material neglect in the houses about town; an error owing sometimes to the false tenderness of the relations, who imagine that the proper regimen is given merely out of frugality, as being less expensive than the usual diet of the sick, and an idea that

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that no disease requires low living, as they call it, except a fever.

After the morbid lentor is evacuated, I always have found the cold bathing of service; and indeed, the sea-bathing and drinking agree very well; nor do I find that they at all retard the critical eruptions on the skin, if Nature points that way. I had a gentleman lately under my care, very far gone in a *delirium sine febre*; after his flesh was reduced, and his pulse became soft, by a very long course of light diet, tartar soluble manna, &c. he began the cold bathing regularly every day, at the same time that the aperient medicines were continued; soon after, there came out a true herpes over all his body, which was not at all impeded by the bathing; and as the whole together gave great relief, I did not venture to make any alteration till the former complaints were quite gone off; after which he took a decoction of the sarsaparilla, with essence of antimony; and, in the course of some months more, the herpes also healed up, without any external application.

In some atra bilious habits, there is a species of chronical lichen, which covers a great part of the body, particularly the pudenda, very difficult to be removed, and extremely troublesome, and indeed tormenting. After sea-bathing and drinking have not succeeded, I have seen this disease
removed

removed by a long course of the *amalgama jovis*, and the Harrowgate waters in summer and harvest : I have reason to believe that the *pilula ethiop.* of the Edinburgh Dispensatory, with essence of antimony, and *extr. cicut.* have also succeeded; but still the body must be kept regularly open throughout the whole course; and care must be taken to regulate the diet. Such as are troubled with the scrophula when young, and recover that complaint about the age of eighteen, as is very common, are liable to dangerous catarrhs, till they pass twenty-five; then they become very healthy, strong, and lusty; about fifty, they frequently are troubled with very obstinate diseases of the skin; so that the *glutinosa spontanea* of Boerhaave seems to affect them at that age, as the *atra bilis* does some other habits.

Herein then seems to consist the difference between the yellow bile of harvest, and the black bile of the beginning of winter: the same acrid, thin, yellow lentor which floats in the blood all summer, is the cause of the bilious ailments; which being concocted and determined upon the bowels, is evacuated chiefly by stool, in appearance like yellow bile; but if it is not evacuated during that season, and before the weather becomes cold, it becomes less acrid, more tenacious, and more deep in colour; it then

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then is called *succus melancholicus*, or *humor atrabiliaris* by the ancients. In this state it may produce arthritic pains, and various diseases of the skin.

But if it should be determined by Nature on the bowels, and there impacted, it will breed piles, or symptoms of the *morbus hypochondriacus*, or *hystericus cum materia*, which cannot be removed till it is attenuated, diluted and expelled by stool, of the consistence and colour of black bile: if, therefore, we find, that nine, fourteen, or twenty-one days are required to concoct and evacuate thin, acrid, yellow bile; surely we need not be surpris'd that as many weeks, nay months, may be necessary to dilute, concoct, and expel thick, tenacious, black bile; especially if we consider, that it must chiefly pass by the way of the spleen, and the other branches of the *vena portarum*, where the circulation is very languid, even before it comes at the liver; which being in an obstructed state, renders the secretion still more tedious. In a very considerable number of cases, I do not find one shorter than forty days, and many have exceeded twenty-one months; but still they were at last recovered; so that there is no disease, or class of diseases, requires such patience and perseverance, both in the patient and physician, as those of the atra bilious kind.

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I do not at present recollect any man of experience and observation, that denies the existence of such a morbid lentor as the *atra bilis*. It is also agreed, that such a lentor impacted in the bowels, will bring on listlessness, low spirits, sadness, watchfulness, and all the other symptoms of the *melancholia*, which cannot be cured till the cause is removed.

We also know from experience, that great grief and disappointment, or any disagreeable vexation, so considerable as to engross the whole attention, if long continued to prey upon the mind, will gradually destroy the natural functions; if to this you add a sedentary indolent life, and a constant eating of animal food, fat, and butter, the *humor atrabiliaris* will most certainly be bred in the blood; and if the same causes are continued, obstructions in the bowels must succeed, and the same disease be produced, as if the original remote cause had existed in the body; so that the same obstructed bowels which were the cause in the first case, become the effect in the second; but the bodily ailment is still the same, *viz.* the *succus melancholicus* impacted in the bowels; and therefore, the intention of cure must always remain the same, *viz.* to dilute, attenuate, and evacuate this morbid lentor; after which,
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the parts affected may be braced to their proper tone.

And here I cannot help admiring the ſagacity of the fathers of the church of Rome: whenever a man of an auſtere diſpoſition, choſe to ſeparate himſelf from the ſociety of his fellow-creatures, the church impoſed ſuch faſtings, diet, and exerciſes upon him, as were beſt calculated to prevent the formation and accumulation of the *ſuccus melancholicus*. I have often wiſhed, that when we renounced the errors of this church, we had at the ſame time retained the ſalutary dietetic precepts recommended by it. There is a fact which I never heard controverted, *viz.* that many people in a monaſtic life arrive at the moſt mature old age, without ever having felt thoſe complaints to which people in common life are ſo ſubject; nay, their number is ſo great, as to vary the calculation of annuities; that is, the average of lives is longer in a Roman catholic, than in a Proteſtant country. Among the Mahometans, I dare ſay it will be found ſtill more ſo; for beſides their great regularity and ſobriety, cleanlineſs is alſo enjoined; but unluckily we cannot aſcertain their ages, becauſe they keep no registers of nativity.

Having thus given ſome idea of the nature, origin, and progreſs of this diſeaſe,

I now

I now proceed to specify that method of cure which I have found most successful in it.

1. If there are symptoms of plethora, or great fulness in the pulse, the patients bear bleeding very well.

2. If the tongue is foul, and there are signs of turgid matter in the stomach, I vomit them, as directed in the bilious fever.

3. If there are signs of turgid matter in the lower belly, or if they have been long costive, I order a brisk dose of physic, such as the purging apozem, to be given early in the morning, and continued every hour by cupfuls, till they begin to have purging stools; after which I direct some soft, thin, warm liquor to be taken frequently till the purging ceases.

4. I allow them great plenty of nourishment; but no kind of animal food, nor fermented liquor, nor spirits; nor austere acid, till the symptoms are much abated; but as much honey, ripe and preserved fruit, roots, greens, sallads, and light well fermented bread, as they please. There is no beer used in this town small enough for their common drink; the best liquor for their common drink, besides water and tea, are hydromel, rennet-whey, barley-water sharpened with oxymel, or gelly of currants dissolved in water, or small tamarind beverage, or pippen tea, and the like.

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That few of my patients adhere strictly to this diet and yet recover, is true; but still this diet is most proper.

5. Every morning I order them to take half an ounce of soluble tartar dissolved in half a pint of rose-water, and sweetened with as much manna as is found sufficient to procure them two plentiful soft stools. In the beginning, many require two ounces of manna for this purpose; but by degrees less will do, and towards the end, honey will answer the purpose instead of manna, where it does not disagree.

After some days, they frequently complain that the mixture is cold and windy in their bowels: in these cases, I have substituted mint-water in the stead of the rose-water, and this has corrected that effect.

6. They are taken out of bed every morning early, and assisted to walk about till the mixture has had its effect.

7. The quantity of exercise in the open air, is increased every day, till they come by degrees to walk a great many miles; nor do I hinder them from as much of the *medicina gymnastica* as they please within doors, if the weather is very stormy.

8. If they are well enough by the month of April, to go to Cheltenham, the water of that place is very good for them; and after six weeks, they may be removed to the sea, there to drink and bathe; but still the regimen

regimen must be persisted in, both as to diet and exercise, till all the symptoms are gone; after which they may begin the lean of animal food to dinner, and so gradually mend their diet, remembering always that spare diet, early hours, and hard exercise, are best adapted to their constitutions.

Some recover in the course of six or eight weeks, and I have not hitherto met with any that required more than two years. In the most inveterate cases, I have always been able to perceive an amendment within three months; and then the patient is willing to think himself quite well, merely to get free from restraint; but care must be taken not to be over-precipitate, for fear of a relapse; of which I have seen many instances.

By the same, or a similar treatment, I have cured the most inveterate *guttæ rosacæ*, herpes, lichen, impetigo, dartres, and all those cutaneous diseases commonly ascribed to the scurvy; as well as such piles and hæmorrhoids as have been reckoned fistulas, without any other external application than a common poultice.

The same method nearly has also succeeded in the gout; and I have seen instances, in which the chalky knobs have been dispersed; the orifices that had discharged chalky matter for a considerable time, healed up, and the patients recover-

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ed the use of their limbs. I have not hitherto ventured to prescribe this regimen for gouty people advanced in life beyond the age of fifty years ; but by the example and precepts of some learned and ingenious physicians of my acquaintance, I am firmly convinced, that it may be done with great propriety and advantage, provided only that care is taken not rashly to precipitate, as has been done by some ignorant pretenders, who, by their want of knowledge and patience, have destroyed some delicate people, and brought that method into disrepute, which, with prudent proper management, might have been very salutary, and even produced a radical cure ; of which I know many instances. Dr. M. of C. was past sixty when he began this method fifteen years ago ; Mr. A. was fifty ; the Rev. Mr. H. was indeed only forty years of age, but eighty in constitution at that time, although he looks so hearty and well at present. But mankind is apt to despise simple things, and admire most what they least understand.

If the blood is loaded with the *humor atrabilaris* ; or, if there is a considerable quantity of it collected in the *viscera*, and no fever accompanies it ; there seldom is any great pain, or symptom of imminent danger ; but if, by any accident, a fever is superadded, the *humor atrabilaris* is attenuated,

nuated, and becomes exceeding acrid; it must, therefore, be evacuated with all speed, or the consequences will soon become fatal. I remember an instance of this in the nursing-house of Mrs. Johnston in the Old Jewry; a raw-boned, thin, dry, dark complexioned man, ill of a confluent small-pox, and given over for lost, was put upon an antiseptic course of regimen, *i. e.* his body was kept constantly open, and he was fed with fruit and acids, and kept as erect as possible in bed, although he was not at all delirious: the fever did not abate after the eruption as usual, nor upon the fourteenth day: both his cheeks, hips, and many parts of his body were covered with deep gangrenes, which did not separate before the twenty-eighth day; during all which time the pulse was very quick, and the heat and thirst considerable: during the course of this long fever, he was constantly taking spirits of sea-salt in all his drinks, and bark-draughts every four hours; but still the body was kept regularly open till the scabs fell off, and the stools became less foetid, and of a more natural colour; after which his diet was mended, and his body was suffered to become more coctive. The colour and offensiveness of the stools made me suspect that an atrabilious habit was the cause of so malignant a small-pox, and the constant relief from soft purges con-

firmed my opinion. There never was any other application on the face but tripe-liquor, and in two years the scars were inconsiderable, considering the first appearances.

Sometimes this humour becomes thin and acrid of its own accord, and is partly reabsorbed into the blood, and partly finds its way into the intestines; a good deal of it also passes by the kidneys, so as to colour the water black. This was the case of Mr. A. J. who, after the death of his wife, became melancholic, and at last seemed to have a black jaundice; a most dreadful fever was the consequence. Although he was sunk and languid, his pulse was prodigious hard and strong; so that he bore the loss of twelve ounces of blood, which was exceeding fizy, and of the deepest yellow colour I ever saw; he was kept continually purging by frequent draughts of tamarinds, manna, and soluble tartar; his whole diet was fruit, and all his drink was acidulated with *spir. sulph.* till the fever subsided, and he recovered his colour; his urine became gradually more pale, from being black as ink, and his stools less offensive; after which he lost his desire both for acids and fruit, longed for roasted mutton, eat some of the lean of it, and seemed greatly refreshed by it: after this he returned again to the fruit diet, and recovered every day. This fever was violent,

lent, and consequently finished its course in fourteen days from the first seizure. Black urine, therefore, is not always a deadly symptom, but indicates an atrabilious disease.

Of the same nature is the *morbus niger Hippocratis*, so well described by Fred. Hoffman, where the dissolved blood, mixed with the *humor atrabilaris*, finds its way into the stomach, from the spleen, through the *vasa brevia*; and is brought up by frequent vomiting, in colour resembling ink. When this humour is acid to the taste, there are some hopes of recovery; but when it is foetid or very acrid, death soon follows.

Upon inspecting the bodies of such patients after death, we find these *vasa brevia* much distended, the spleen obstructed, and filled with blood of an uncommon black colour. I am sorry to say that I have not yet succeeded in curing this disease.

At other times, this humour seems to dissolve gradually, and to keep up continual irritation, by a perpetual drilling from a foul fountain, and is the most difficult to remove, because it requires daily purging: if the medicine operates beyond a certain degree, the patient sinks under it; yet, if it should not act sufficiently to clear the bowels of the turgid matter, he is teased with a perpetual *tenesmus*, and a *meteorismus* comes on: it is therefore necessary to give such a purge as will just clear the bowels, and not incline the

patient to be coſtive afterwards; by which he is always much relieved, and a good reſpite is procured for two days; during which time, he gets down nourishment, and the habit is ſtrengthened to perform the next coction and expulſion, eſpecially if proper attention is paid to the diet: For this purpoſe, I have uſed for many years one ounce of manna, and half an ounce of ſoluble tartar, made into an emulſion with eight ſweet almonds, and half a pint of roſe-water, a cup to be taken every hour till the body is properly opened. I give no opiate afterwards, nor any other cordial than diet and wine.

Upon the ſixth of September, I was ſent for to ſee Mr. G. a man about mid-age, raw-boned, thin, fallow, covered with black hair, and gouty for ſeveral years. I was told that his fever had begun about ſix weeks before, with a wandering gout, and afterwards went into a malignant fever, with great dejection of ſpirits, loſs of ſtrength and appetite, a continual *tenefmus*, cholicky pains, and little, fœtid, gleety ſtools: for theſe complaints he had been once vomited, and taken rhubarb frequently, with frequent opiates and cordials, to no purpoſe, although he had ſweated very often: during this time his diet was chiefly broth, and gellies of meat. About the end of the third week, apthæ came on, for which various remedies had been tried, but to little purpoſe. I found

him in bed stretched upon his back, hardly able to speak; he had a constant hiccup, his belly was swelled and hard, and his pulse intermitted every third stroke; he had a constant little discharge by stool almost insensibly, of a dark coffee colour, and cadaverous smell; he loathed all food and drink; he had apthæ of a yellow colour, which were partly fallen off; the mouth and gullet were without skin; and I have reason to believe the stomach also, for he screamed out with the pain of his stomach as soon as he was prevailed on to take any medicine, food, or drink; his face was ghastly, fierce, and staring, and his urine was like dead beer. There were, however, three favourable symptoms; his head was pretty clear, his breathing was good, and he flavered much.

I directed his body to be opened with the above emulsion, and then as much common emulsion, panada, or gruel, to be got down as they could; to sharpen all his sippings with the expressed juice of ripe fruit, and to sweeten them with honey.

September seventh, The aperient emulsion was all taken, and procured two very large pitchy stools; the effect of which was, that the belly subsided a good deal, but still felt rather hard; the purging stopt, and the pulse became regular, and beat one hundred in a minute; but the stomach was
so

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so irritated, that it rejected every acid, and the hiccup continued. I directed the same diet to be continued without acid; but to give a tea-spoonful frequently of a linctus made of equal parts of oil, honey, and currant gelly, and to inject a clyster in the evening, of nourishing and emollient ingredients.

Sept. eighth, The clyster procured him two stools, which removed the hardness of the belly and the hiccup; the mouth was not quite so bare; his stomach bore some soft nourishment, such as mulled eggs with honey and water, and a few ripe currants; but he loathed the linctus: his pulse was one hundred; but he spoke better, and seemed much relieved, only very faint and languid. Some sweet wine was added to his sippings, and the following draught every four hours; but on the morning following he was ordered to take enough of the purging emulsion to procure a stool.

R Camphor. gr. ij.

Amygd. dulc. decoct. No. ii.

Sacchar. ʒiss. aq. rosar. ʒiss. f. haust,

Sept. ninth, He took four draughts; and this morning the aperient emulsion, which procured two large foetid stools, of a very deep, dark yellow colour, and he was greatly relieved. His pulse was now strong and large,

large, and beat one hundred in a minute; his stomach was very tender, and he reached frequently, but brought up nothing but phlegm. I saw that the exacerbation was come on, and foretold a fresh eruption of aphthæ; accordingly I directed all his sippings to be warmed, the draught, with the addition of three drops of laudanum, and six drops in the night draught, to be continued, with a little wine as before. At night the aphthæ came out copiously, and he sweated moderately for five hours.

Sept. tenth, He is much relieved this morning, gets down a good deal of nourishing sippings, has had no motion to stool, slept most of the night; his pulse is ninety-six, soft and large: *pergat in usu remedium, demptâ solummodo tincturâ thebaica.*

Sept. eleventh, He continues to mend, and swallows very much, pulse as yesterday, has had no motion to stool, and the aphthæ are well coloured and separating very fast: *infunda: Enema emolliens; pergat in usu haust. camph. sine opio; cras mane repet. emulsio aperiens.*

Sept. twelfth, The clyster did not move him; he has had a pretty good night, flavoured considerably; one cup of the emulsion has procured a vast discharge of foetid, yellow bile, poultaceous, and of a dark orange colour; his pulse was ninety, and at night his urine was muddy, *i. e. jumentosa;*

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toſa; *cras mane repet. emulſ.* loathes the camphor draughts, and therefore they were not ordered.

Sept. thirteenth, He has had ſuch another dejection this morning by one cup of the emulſion; has perſpired all night, ſlavered a great deal, taken down nourishment ſufficiently; pulse only eighty very ſoft, and there is a plentiful ſediment in the water, with a vaſt crop of well-coloured aphthæ: *capiat ℥ij. decoct. cort. octavis horis.*

Sept. fourteenth, He has had a pretty good night; no motion to ſtool, he ſlavers plentifully, and has ſweated about five hours: he complains of the pain in his ſtomach; his urine is not quite ſo well ſeparated, and his pulse is full and up to eighty-four, yet he complains of weakneſs.

Sept. fifteenth, He has ſweated as uſual, and ſlavered more; complains much of the pain in his mouth, throat, and ſtomach; ſays that the draughts hurt his ſtomach very much; however, he has taken four more of them, and got down a ſufficient quantity of ſippings with ſome Muſcadin wine; no motion to ſtool; a ſoft pulse at eighty-fix; but his urine is not ſo well ſeparated as yeſterday. I ordered the draughts to be given once in ſix hours, and ſome aſſes milk night and morning, by way of addition to his food.

Sept.

Sept. sixteenth, The asses milk has agreed well with him; he has had a good deal of sleep, taken three bark draughts and nourishment as usual; thinks himself better, because he has no motion to stool; his mouth gives him no pain, and he flavers very little; his belly also is soft, and his skin does not burn; but is dry, the urine is crude, and the pulse up to one hundred and eight: I therefore conclude, that there is another push of aphthæ at hand, and that it ought to be promoted, else all may still go wrong: I accordingly ordered the emulsion to be repeated immediately, and all his sippings to be warmed; I permitted him to drink wine-whey, and to desist from the bark, giving the anodyne draught at night in the camphor mixture.

Sept. seventeenth, The emulsion operated properly; the aphthæ returned very plentifully and well-coloured; he sweated five hours in the night, and the flavering is returned; he is in better spirits; complains less of his stomach, and the pulse is come down to eighty-four; but he complains much of his throat, and the urine is crude: *capiat julepum cum spiritu salis marini, et anodynum hora somni.*

Sept. eighteenth, He slept pretty well last night, but could not bear the julep; his skin is soft and moist; his pulse is only eighty; urine *jumentosa*; flavers much; he has vomited

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mitted heartily this morning, and had a very copious, poultaceous stool, of a better colour than formerly: *repet. haustus anodyn. h. s.* does not take the bark regularly.

Sept. nineteenth, He has had frequent returns of the vomiting in the night, which have disturbed his rest; but his stomach is easier this morning; the asses milk agreed very well, half a pint evening and morning; his breathing is good, skin moist, mouth clean, and he is able to keep some chicken broth with rice on his stomach; his urine is loaded and hypostatic; his pulse is seventy-eight: *pergat in usu cortic. and repet. haust. anodyn. hora somni.*

Sept. twentieth, The vomiting is gone off; more aphthæ are come out; he takes very little of the bark: he is much as yesterday, only complains more of weakness. I now look upon the fever to be pretty well exhausted; and therefore I have directed no other medicine than an opiate every night; every morning and evening to take from a gill to half a pint of asses milk; twice a day half a pint of broth; a pint of sweet wine, plain or mixed with his common drink, and to eat as many ripe figs, melting peaches or pears as usual, that is, as many as ever he pleases, and to give his drink cold; he also takes butter-milk in the stead of his broth, when he prefers it. He proceeded thus, mending gradually to the
twenty-

twenty-third, when the pulſe got up ſuddenly to one hundred and twenty, and he became very faint and languid; upon which the purging emulſion was repeated; a new crop of apthæ came out after he had had two ſtools, and the fever ſubſided gradually.

Sept. twenty-fourth, I intended theſe ſlight preparations of the bark, not as a febrifuge, but only as a tonic medicine; becauſe he could bear nothing more acid than a peach or a fig; but finding that nothing had given real relief but the purging emulſion, I determined to repeat it every morning, ſo as to ſecure a good free paſſage, and procure a good night afterward, by a mild anodyne, ſupporting him all day with nourishment as before, and making him ſit up, or lie upon the bed.

Sept. twenty-ſeventh, We proceeded in this courſe to the twenty-ſeventh, when the pulſe got up of a ſudden to one hundred and twenty: when I told him that his pulſe was again very quick, he would not believe me, becauſe he ſaid he found himſelf very well; however, I ordered the emulſion to be repeated the next morning, ſo as to purge him.

Sept. twenty-eighth, The fever is again ſubſided; there are no apthæ returned as far as I can ſee; but the flavering is come back again to a great degree. He now re-
liſhes

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lishes a little meat, and I have left him as a convalescent.

Now, I call this an atrabilious fever, both from the natural habit of the patient, his former ailments, and the manner of its termination; for it is evident, that he required purging every morning, even after many partial coctions and expulsions by apthæ; which is not commonly the case when putrid, or even bilious fevers terminate by apthæ; for the same soft purges which removed the *meteorismus*, cured the hiccup, promoted the apthæ, and *carried off the whole fever, according to its own nature*, to use the words of Sydenham.

In most apthous fevers attended with such regular and perfect apyrexia, the bark also is of service, according to the observation of Sydenham and Van Swieten; but here it did no real service. I attended a lady in an apthous fever at the same time, where the bark seemed to do some service, *viz.* Mrs. M.; but it always does mischief if given too early, and before there is a true apyrexia, and hypostatic water.

I formerly had occasion to mention the hiccup in the case of Mr. W.'s porter, owing to the great evacuations instituted during the course of that long fever; which was of the nature of that mentioned by Sydenham, sect. i. art. 50. *Contin. Fev.*
ann.

ann. 1661, 1662, 1663, 1664. and consequently was cured by antispasmodics, as Hoffman directs. But this hiccup of Mr. G. was owing to a very different cause, viz. acrid matter lodged in the stomach and bowels, which had been retained, and consequently occasioned that irritation, which brought on the spasmodic, convulsive motion of the diaphragm, and was accompanied with aphthæ, as described by Sydenham, *Sched. Monit.* art. 10. to which I refer. But I say of this, as I do of every other symptom, to treat it properly, we must first of all investigate the cause of it, whether it arises from acrid and turgid matter, or from inanition, or spasm, or excoriation; and having once ascertained this, we never can err in the method of cure, unless we become impatient, or endeavour to combat the symptom without removing the cause. Vid. *Van Swieten*, vol: ii. p. 265 *.

About twelve years ago, I was called to see a lady in Marybone Street, whom I found in so great danger, that I desired the assistance of Sir William Duncan. The case was as follows:

This good lady was near sixty years of age, and had suffered much by grief and vexation for two years, which brought on

* *Eum vero recte curaturum, quem prima origo causæ non fefellerit.* Cels. lib. i. præf.

great languor and dejection of spirits: at last she contracted a *peripneumonia notha*, with a soft, small, quick pulse. These symptoms deterred the assistants from using the necessary evacuations in the beginning of the distemper, and even induced them to support the strength with animal food and warm cordials. When the difficulty of breathing increased, they endeavoured to remove it, by applying a large blister to the back.

The consequence of all which was, an eruption of ill-conditioned aphthæ; and she died in a few days. At that time I had never seen a *peripneumonia notha* complicated with aphthæ; but Sir William told me, it was not uncommon, when the proper evacuations had been neglected in the beginning of the fever, and heating regimen persisted in during the crude state. In atrabilious habits, I have seen many instances of the same kind since, always owing to the same cause, which never happens when the *peripneumonia notha* is properly treated. These were the cases that made me perceive the affinity between the atrabilious diseases, and this species of peripneumony, and will account for the great success with which I have treated that distemper ever since I made the observation. The method, in which I have thought it necessary to be very particular, will appear in the following section.

OF THE
PERIPNEUMONIA NOTHA.

I COME now to consider the second part of the atra bilious constitution, *viz.* when some degree of fever and cough is superadded; and to mark the particulars in which this fever differs from the bilious and atra bilious fevers, already mentioned. The yellow morbid lentor, as has been said, is more thin and acrid, and consequently the fever is more smart; the pulse is more quick and more full: if the disease is exasperated by heating drugs or acrid diet, it sooner becomes miliary and malignant; if properly treated, it is sooner carried off; because thin matter is more moveable than thick; and if the grosser parts are carried off by the common sewer of the bowels, the thinner and more acrid will pass finally by the skin and kidneys gradually, as they are separated from the blood, and thus ouze out of the habit on or before the twenty-first day.

The breathing is always clear in the yellow bilious fever, and the cough which

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attends it, is no essential part of the disease, never requires any particular attention, but always goes off by the common treatment, along with the other symptoms. The pain in the head also, although pretty acute in the beginning, soon subsides after the third purge, and is not attended with that degree of fulness or repletion in the head, which prevents the patients from moving their body, and is one of the pathognomonic symptoms of the atra bilious fever in the peripneumonic habits.

After a single bleeding, vomiting, and proper purging for a certain number of days, according to the degree of the fever and habit of the sick, the yellow bilious fever comes to coction and crisis by kindly perspiration during the night season, and finishes in a few days afterwards; whereas this species of atra bilious fever, after the same bleeding, vomiting, and purging, comes to a peculiar species of coction and crisis, viz. a spitting of gross matter from the lungs; which frequently lasts forty days, according to the observation of Hippocrates, before the lungs are purged, and the whole habit depurated.

The true atra bilious fever then, when complicated with peripneumony, has every symptom already mentioned in the yellow bilious fever; to which is superadded, first, A remarkable smallness and softness of the pulse :

pulse: secondly, A degree of repletion in the head, which endangers an apoplexy on violent or quick motion: Thirdly, A difficulty of breathing, and frequently a wheezing noise in respiration, peculiar to this fever, and seldom accompanied with any acute or seated pain: fourthly, Then comes on a dry, hard, tearing cough: and, fifthly, An expectoration of tough phlegm, at first ropy and white, but at last soft and yellow, as often as the principal part of the crisis comes by the lungs.

These are the five pathognomonic symptoms of this fever, which distinguish it from every other disease. I have looked over the ancients for it in vain; I suppose their manner of living, and the climates of Arabia and Greece did not favour it; however, they could not help observing in general, "*Obesi plerumque, acutis morbis, cum difficultate spirandi, strangulantur; subitoque sæpe moriuntur: quod in corpore tenuiore vix evenit.*" Compare with Hippocrates, sect. ii. *Aph.* art. 44.

But let us now enumerate the facts, and trace the natural rise and progress of this complaint, as the surest means to form a just idea of it. In the high and southern parts of Europe, it is scarcely formed; in the hot climates never: but it is frequent in Normandy, Flanders, Holland, Britain, and Ireland; where the pasture-lands are

rich, cattle and poultry highly fed, where the people indulge in eating fat and butter, and drink fermented liquors, or debauch in spirits. Sydenham thought that brandy was the sole cause of it; and therefore proposed, that it should be absolutely prohibited except among the surgeons, and there confined to external application only.

We meet every day with people who pant and wheeze, with a bloated face, yellow, prominent eyes, short-neck, big-belly, slow soft pulse, cool hand, fair skin, and good appetite, without any sign of spasm, tickling pain or cough, but a perpetual oppression on the breath, if they but walk a little, and a frequent, vain endeavour to bring up a tough, insipid pituite, that seems to stuff every gland. In general, these persons take little exercise, eat a great deal of animal food, fat, and butter; their meat is plainly roasted or boiled; or rather half roasted or half boiled; they drink nothing but fermented liquors, except a little tea morning and evening, and take a reasonable quantity of sleep: they are warm in bed, but hardly ever sweat, because the vessels are pressed by the fat in the cellular membrane, and the skin is distended; so that nothing can escape easily that way, but a thin volatile exhalation, while all the gross oils are retained, and
perhaps

perhaps united with, and coagulated by the austere acid of their drink, which also abounds in all animal fat, particularly that called tallow. This union is not only known to all our chymists, but also to our tallow-chandlers, who convert the thinner fat to dry tallow by the help of mineral acids.

In hot climates, where the skin is much relaxed, and the juices greatly exalted, this can hardly be the case; nor indeed is the meat so loaded with fat; and their ripe fruit yields a more soapy acid: but in our country and climate, an oily, viscid lentor may easily be contracted, and frequently continue for a long time, without any signs of much acrid or active principles, and men frequently die suddenly of a *peripneumonia notha*, after eating a hearty dinner, without any appearance of a former indisposition.

Thus we have an idea of the *terrentia morbi*, to prevent the dangerous consequences of which, such a reformation of regimen is necessary as few people will conform to, till by an interrupted perspiration, or some other accident, the lentor is rendered more acrid; a degree of fever then comes on, with a degree of cold, horror, and rigour; a difficult breathing, and tickling dry cough.

This is the first stage of the formed fever, and gives name to the disease; because it does, in some degree, resemble the true peripneumony, and in some people, at certain seasons, may require repeated bleeding; yet, if we consider the people who are liable to it, the season of the year, and the changeable weather at that season, the smallness, and frequently softness of the pulse, the colour of the face and eyes, the colour of the urine and tongue, the absence of thirst, and other symptoms, we can hardly be at a loss to distinguish them.

Since the days of Sydenham, several gentlemen have written very well on this subject: I have compared them together, and with a great number of cases: upon the whole, I think Sydenham the best guide for the plain, true enumeration of the leading symptoms, and the special method of cure; by which it will appear how much this disease partakes of the nature of a bilious or atra bilious distemper; for the genus of a disease is to be learned as well by the manner of its termination, and the method to which it yields easily, and according to its own nature, as by the manner of its first coming on, the season of the year, the symptoms that attend it, the effects of the weather, and of remedies on these symptoms, and the particular habits most liable to it.

I will

I will therefore consider, first, what Sydenham has said of it, and then add some remarks taken from my own observation.

Sydenham divides this disease into two sorts; the first he calls the *winter fever*; and the second is the *peripneumonia notha*.

According to him, the winter fever begins in November, and continues more or less all December and January. It comes on with little signs of inflammation, and therefore is often quite neglected: sometimes it is ill-treated by heating medicines and confinement in bed, which bring on miliary eruptions, and sometimes even petechiæ, although neither of these are by any means to be accounted the natural consequence of the disease. When Nature is not interrupted, there never are signs of any malignity; and when properly assisted, it invariably gives way in the course of nine days; and all the symptoms are in number only seven.

“ First, Paroxysms of heat and cold succeed alternately for a day or two after
“ the beginning of the fever: secondly, A
“ pain in the head and limbs, and an universal restlessness: thirdly, The tongue is
“ white: fourthly, The pulse much the same
“ as in a healthy person: fifthly, The urine
“ turbid and high-coloured: sixthly, The
“ blood

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“ blood like that of a pleuritic person: and,
“ seventhly, It is also generally attended
“ with a cough, but not with such a diffi-
“ cult respiration, nor so violent a pain
“ of the head in coughing, as happen in
“ the *bastard peripneumony*, though it
“ differs from this distemper only in
“ degree.”

The method of cure is of the same nature with what he has recommended in the bilious or *new fever*, viz. one bleeding; after which he orders the purging apozem to be given and repeated every second or third day, till all the symptoms go off, cooling and diluting all the time, keeping up all day, and refraining from animal food.

Nor will this simple treatment ever fail; the bleeding is not always necessary, and an opiate after the purging still less so.

But if these precautions are too long neglected, and the patient happens to be of a temperament such as we have already described, then the *bastard peripneumony* will be the consequence, and all the following train of symptoms may be expected, if the patient should not die suddenly, before any proper assistance can be given. *Syd.* chap. iv. art. 2. “ First, The patient grows
“ hot and cold alternately: secondly, Is
“ giddy: Thirdly, Complains of an acute
“ pain in the head, when the cough is
“ most

“ most troublesome: fourthly, He vomits up
“ all liquids, sometimes with, and at other
“ times without coughing: fifthly, The
“ urine is turbid, and intensely red: sixthly,
“ The blood taken away resembles pleu-
“ ritic blood, but more yellow: seventhly,
“ He breathes quick and with difficulty;
“ if he be advised to cough, his head aches
“ as if it would burst; for so the patient
“ generally expresses himself: eighthly, A
“ pain of the whole breast accompanies
“ the disease: and, ninthly, A wheezing is
“ heard by the attendants whenever the
“ patient coughs, the lungs not being suf-
“ ficiently dilated; so that the vital pas-
“ sages seem to be closed by the swelling;
“ whence the circulation is so intercepted,
“ that there are no signs of a fever, espe-
“ cially in gross habits; though this may
“ likewise happen from the abundance of
“ the phlegmatic matter, whereby the
“ blood is so surcharged, that it cannot rise
“ to a perfect ebullition.”

To these symptoms he might have added,
tenthly, The eyes are prominent and yel-
low coloured; eleventhly, The belly, for the
most part, is big, hard, and costive; some-
times there are frequent inclinations to go
to stool, but the discharge is inconsiderable:
twelfthly, The blind piles are very common,
with an itching round the *anus*: and, thir-
teenthly, There are clammy sweats in the
beginning,

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beginning, which do not relieve if promoted; but the nightly perspiration in bed towards the conclusion, and after the first passages are properly cleared, give considerable relief: for, fourteenthly, This fever also remits in the same way as the bilious fever does; and terminates sometimes by an intermittent.

When this disease has lasted a considerable time, and after the other evacuations have been persisted in for a proper number of days, the quantity of phlegm expectorated increases: this phlegm at first is clear, and little else than the *mucus* from the throat and fauces; but when the disease begins to come towards coction, then the matter expectorated is mixed with a thick yellow matter from the lungs; upon which the breathing is relieved; the giddiness and fulness of the head go off, and the pulse rises both in size and strength, so as to resemble a real inflammatory fever, and has deceived or tempted the young practitioners to bleed the patient, which always does great mischief at this period.

In the beginning, the pulse is weak, soft, and small, and the head is full and giddy; because the lungs are so infarcted, and all the viscera of the abdomen so obstructed, that the circulation is impeded, and the blood is almost stagnated in the head; at the same time the urine is intensely red,
or

or rather of an orange colour, as is common in all the bilious and atra bilious diseases; the thick sediment, of course, is lateritious, but not at all critical; it only indicates the surcharge of the atra bilious lentor, and therefore is no very good omen. After the first bleeding, and after the purging has been persisted in till the bowels are unloaded, and a considerable quantity of the atra bilious lentor has been evacuated, then the urine becomes more clear, and much less loaded, at the same time that the head is relieved considerably: the urine then remains crude till the expectoration begins, when it again becomes more thick, and prognosticates coction with the other symptoms, arising at this period of the distemper, viz. a moist skin and open body.

When Sydenham first met with this disease, he very naturally concluded that it was inflammatory, and consequently attempted to conduct it by an antiphlogistic treatment: but his natural sagacity soon taught him to discover his error; accordingly, he used, in this distemper, the same method and regimen which had been found so salutary in the bilious fever, and succeeded to his wish; and indeed, if the *peripneumonia notha* is taken in time, none else will be required, as has been said in the winter fever; but if things are neglected

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glected in the beginning, and the stuffing of the lungs is suffered to remain a considerable time, they cannot be cleared by purging downwards, as the ancients have very well observed; but they must require a purgation *upwards*, that is, by expectoration; so that a stated and confirmed *peripneumonia notha* may be divided into two parts; of which the first may be called the crude and obstructed state, which requires a course of deobstruents and purgatives downwards till the bowels are cleared, and the *atra bilis* evacuated; suppose from nine to fourteen days, according to the circumstances of each individual, and of the power of the regimen and medicines employed: and, secondly, The concocted and suppurating state, when the whole remainder of the complaint is fixed in the lungs, and requires a purgation *upwards* by expectoration; during which second stage, all evacuations must be forborn, that are known by experience to retard expectoration; and such only can be of service as we are sure promote it. Thus the same bleeding, and even the purging, which were of such singular service in the beginning, would now become highly detrimental, inasmuch as bleeding stops expectoration, and purging retards it; after the spitting, therefore, takes place, we must not bleed, even if the pulse should rise ever so much; nor must we do any more by purging remedies, than

than perhaps to keep the body regular by a seasonable clyster, *pro re nata*: but our whole attention must be to the degree and quality of the matter expectorated; that is, to forward it by little, gentle, frequent pukes; to render it fluid when too tenacious by dilution; warm steams taken down by respiration, so as to foment the lungs; and all the medicines that are called detergent for the lungs, such as squills, antimonials, honey, and oxymel; vinegar whey, &c. are proper, not forgetting blisters, which are of more service in this than in any other fever, when applied at a proper period of the disease, to attenuate the morbid lentor, and promote the expectoration of it.

By such means the spitting may be kept up to the proper degree, and by it a crisis obtained on or before the fourteenth day, sooner or later, according to the idiosyncrasy, and other circumstances of the sick, observing carefully two things: first, The more yellow and thin the expectorated matter is, the more acid and purging are required; and, on the contrary, in all cases where acids are indicated, animal food is pernicious, or, at least, not indicated, and bread, barley, or rice gruel, with honey, vinegar, and a little wine, will support the strength better than fish or flesh meats; but when the matter becomes white and concocted, then broths may be granted; and so by de-

grees the victuals and drink may be mended gradually, as the disease subsides; and the body suffered to become more costive.

But, secondly, We must not forget, that as a certain degree of expectoration is required, and as this intention must be promoted to a certain degree, both by diluents, attenuants, stimulants, stoops, blisters, pukes, and warm liquors; so it is very possible to carry this regimen and course of medicine too far; and consequently bring on an expectoration of crude matter; which error I have frequently seen: the effect is this, a new fever comes on, with fresh symptoms of crudity; and the spitting, although in great quantity, does not seem to empty the lungs; four ounces of concocted matter, in the course of twenty-four hours, will relieve the breathing more than any quantity of such thin crude phlegm can do.

It is therefore highly necessary, that, as soon as the foregoing medicines have had the desired effect, we forbear persisting in them, unless they should again be required, and that we content ourselves with simple warm diluents, and soft pectorals, so long as the matter continues of a proper colour, consistency, and quantity, waiting patiently till Nature has had time to perform her work, now happily begun. This very material part of the cure is to be

be conducted chiefly by varying the drinks and diet, according to the degree of the tenacity or fluidity of the expectorated matter; and for this purpose, linctusses and juleps must be contrived *pro re nata*. Hence it plainly follows, that the same draught, linctus or julep, that were necessary, and did service in the beginning, must generally do mischief towards the end of this disease, and *vice versa*; and the same is true both of victuals and drink.

But the greatest mischief of all is done, very often, by endeavouring to quiet the salutary cough, and retard, or even dry up the necessary expectoration, by balsamics, anodynes, and opiates: by these means a new ailment is produced, more dangerous than the first; because the strength being already reduced, Nature is less able to restore the salutary expectorations than she was at the beginning; so that the danger of immediate suffocation is very much to be dreaded: to prevent which, in such an emergency, as far as art has hitherto discovered, the following method must be prosecuted without loss of time.

Let some blood be taken away, and a large blister put to the back, then let the kermes mineral, and the oxymel of squills, be given frequently to keep up a constant nausea, and little puking between whiles: let

F f

vinegar.

vinegar-whey well sweetened with honey, be used for common drink, and the lungs frequently stoopt by drawing down the steams of warm water or oxycrate: let these remedies be persisted in till the expectoration returns, and then diminished gradually, according to the case, till they are no longer required, as has been already said.

In all cases where expectoration is required, the erect posture becomes necessary also; because spitting never goes on properly in bed, or indeed in a declined posture. The dread of catching cold in this fever often prevents ignorant people from the benefit they might otherwise receive from sitting up all day in fevers; they constantly expect relief from the sweat which ineffectually flows from their head and breast on such occasions; but I hope, by degrees, these prejudices will be removed, and people will learn to believe, that no sweat does great good before coction; and that in all fevers of partial crisis, no sweat does so much good as that which comes spontaneously in the night season, during the hours that the patient was accustomed to be in bed when in his usual state of health. This sweating, or rather plentiful perspiration, is indeed salutary in this, as in most other fevers; particularly towards the conclusion.

When

When this fever has been treated properly from the beginning, and till the atrabilious lentor is in a great measure concocted and expelled, if there should come on a species of cold and rigour at the beginning of the exacerbation, followed by a considerable increase of heat, and something of a critical sweat towards morning; if this paroxysm returns every day, and sometimes every other day, then the perspiration, or even sweats that succeed, are of service; for although they may diminish the quantity of the phlegm; yet they mend the colour and consistency of the expectorated matter; the breathing becomes more easy; the pulse soft, full, and slow; the appetite for food increases, and the sleep during the night is not disturbed; the patient can lay his head low in bed, and the collection in the night is brought up in the morning freely, by an easy, moderate coughing, in form and colour resembling a large oyster; which will most certainly evacuate the whole morbid lentor in due time, if not interrupted by some rash practice; such as Tirlington's drops, balsam of honey, paregoric elixir, and other nostrums.

At other times, a real ague comes on, with regular formed fits, and a considerable degree of cold, horror, and rigour. In this case, the physician must examine carefully the effect of each fit upon the

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peripneumonia notha, which is the principal complaint, and the ague is only a secondary consideration, perhaps an effort of Nature to shorten the distemper.

If we attend to the natural history of this disease, we shall find it accompanied with all the circumstances that can make coction tedious: the patient is generally elderly, both in years and constitution; fat and gross fed; of a phlegmatic temperament, relaxed solids, and soft pulse: he is attacked during the wet, and beginning of the cold season of the year: it is evident, therefore, that the hot fit of an ague must be serviceable to concoct and expel the morbid matter at this season in such a habit, and in fact we find it so. The cold fit indeed is disagreeable, because of the fear of strangulation; but in a great variety of cases, I never saw any bad consequences, even when appearances were most threatening: as soon as the cold fit goes off, the pulse and breathing are relieved; the phlegm comes up more easily, and much mended in colour and consistency. Surely then, it would be bad practice to stop such an ague: the same remedies that stop the ague in such a case, would probably stop the expectoration; and the sure consequence, if not an immediate suffocation (as has been already taken notice of), is, at least, arthritic complaints in spring, of which I know

know many instances ; or, perhaps, obstinate obstructions in the lungs, or bowels ; or articulations ; and sometimes an incurable *hydrops pectoris* : ignorant people, therefore, may do much mischief by the unseasonable use of febrifuges in this complaint.

But care must be taken to distinguish this salutary ague which relieves the breathing, and concocts the expectorated matter, from an ague that sometimes comes on very late in the distemper, when the strength is much exhausted, the lungs much relaxed and fatigued ; what is expectorated is thin, acrid, and yellow ; and the glands seem to discharge immoderately a crude catarrhus phlegm : in this case, every fit increases the quantity of phlegm, which, at the same time, becomes daily more thin and yellow, the pulse more small, the sick more languid ; the stomach loathes food, and the countenance is haggard ; the skin becomes of a dead white, the eyes of a pearl colour, and the whole body leucophlegmatic : in this case, I say, the bark is the best medicine both for the cough and ague : nay, I have seen the ague stopt by it in a few days, and an easy, well-digested spitting remain till the whole ailment has been perfectly cured. Upon such occasions, I have always given the bark simple, or boiled with liquorish root ; avoided all alkaline and

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heating medicines, for fear of increasing the acrimony.

For, although in some cases, when the phlegm is clear and tenacious, they may be of service to promote a concocted expectoration; yet they do not succeed in cases where the phlegm is thin, yellow, and acrid: there is danger by the over free use of such drugs, of turning the *peripneumonia notha* into an obstinate, ill-conditioned catarrh.

When the disease is quite cured, mustard and horse-raddish, as part of the diet, agree well enough with some persons who are liable to this complaint, and cannot forbear spirituous and fermented liquors; or a table-spoonful of mustard-seed may be taken entire now and then, to keep their bodies open: but above all, they must avoid fat and butter in their diet; they must ride on horseback, and learn to eat honey, if possible; to eat fruit fully ripe with bread, whey, and butter-milk, with sugar and bread; and go to bed with an empty stomach. If they can go to the sea in the summer season, to drink and bathe in the water will be found of great service to most people who are subject to atra bilious complaints of every kind; as I have experienced in many cases, which I am not at liberty to publish. They must get up early, take exercise before their meals,
eat

eat the lean of meat, with much garden stuff, to dinner only, and never exceed in strong liquors of any kind, nor austere acids.

During the season of the putrid constitution, or even while the bile is thin and yellow, one of a bilious habit may venture on austere acids and unripe fruit; such as our gooseberry tarts, and the like; but after September he ought to prefer the ripe, soapy, melting fruits, or the preserved fruits, and not the hard, rough, unripe plums, quinces, and medlers: these are to be reserved for powerful antiseptic medicines; and are, therefore, improper for common diet. Our sweet roots and greens, peaches, and even melons, will answer better, if taken with bread for his meal, and well diluted by a good draught of cold water; or before his meals; but not by way of desert after meals, to overload his stomach, already filled with solid food, and fermented liquors, to distend the stomach and coagulate the oil.

These are the most common of the atrabilious distempers, very common here, seldom well understood; and consequently, for the most part, ill-treated: *horresco referens!*

RECAPITULATION.

I SHALL now draw, into a more comprehensive view, an account of the several diseases which are produced by, and partake of the reigning constitutions which succeed each other in the circle of the year, their various complications with each other, and the different intentions of cure. This is the more necessary, as I am conscious that, in the situation in which I wrote, I could not keep so strictly to method, as might be expected; and was obliged to have recourse to frequent digressions. I was unwilling, that some observations, which I had great reason to think of importance, should lie dormant in my own mind, till I could reduce them into a system; which, however, may, perhaps, hereafter be done: I therefore committed them to writing as they occurred, during the short and interrupted intervals of business; and I have now laid them before the public from the same motives. If my little work shall be found to contain useful knowledge, I am not very solicitous about the manner in which it is conveyed. For the unavoidable

able repetitions in this recapitulation, I shall make no apology.

All fevers are, for some days, preceded by several little complaints, which were called by the Greek physicians *ποσειρα*, which Celsus translates *terrentia morbi*, the harbingers of the fever. These are succeeded by a degree of rigour, which is the beginning of the *stated* fever, and marks the first day of it *in the journal*. The quick pulse, dry mouth, hot skin, and other febrile symptoms follow: these increase gradually for some days, and at length get into a regular train; so that something of the same sort happens every day nearly at the same hour, for some days, without any sensible alteration. During this period, much mischief is done by ignorant people, who, not considering that Nature is at work to digest the morbid matter, and prepare it for expulsion, are very officious, by heating at one time, cooling at another; now raising the fever too high, then lowering it too much; running first one way and then another, like a person in a labyrinth, impelled by a blind desire to get out, without knowing the right tract. When Nature has had sufficient time to prepare the matter for expulsion, and to expel the greater part of it, all or most of the symptoms subside gradually, till the disease deserves the name of a fever no longer; but
still

still some complaints remain, which are the consequences of the fever, or in common language, the dregs of it: here, again, ignorant people are over-officious, by procuring such violent evacuations as reduce the natural powers, and retard the perfect recovery.

Every fever may be divided into the following periods: the harbingers, the beginning, the increase, the state, the decline, and the consequence; and each of these may have different degrees, both of violence and duration, according to the nature of the fever; for each species of fever has a nature peculiar to itself, in consequence of which, it goes through its periods with greater or less velocity than others: it is therefore necessary to acquire a particular knowledge of each species, so as to distinguish the fever in question from all others, and to determine the duration of its periods.

To communicate what I know of this matter, I have divided all fevers into two classes: the first I call common fevers; because they happen regularly every year, and seem to be the natural production of this climate, and of the manner in which we have lived for at least these last twenty-years. The second I call uncommon or pestilential fevers; because they are not the constant and natural production of our climate,

climate, but are either of foreign importation, or the necessary consequence of some extraordinary combination, and produced in a gaol or hospital, by bad water, bad provisions, or some other cause, co-operating with the climate, and usual manner of life.

These fevers are generally contagious which the common fevers are not, except their nature is altered, and they are rendered malignant by bad treatment. In each of the common fevers there is a great variety of symptoms arising from the variety of seasons and weather; from idiosyncrasy, and other circumstances of the sick. These various symptoms have given rise to the great variety of names by which fevers have been distinguished; for, after all my reading, and all my experience, I think the common fevers may be reduced to seven species, classes, or constitutions; and as they arise from the season of the year, must affect many at the same time, consequently be epidemic, *viz.* The inflammatory, humoral, catarrhus, putrid, bilious, atra bilious, and intermittent.

1. The inflammatory fever, or fever from fizy blood, which I have ventured to call *Καυσος*, or ardent, or burning hot, if left to Nature, always terminates by the formation of pus in the vessels, which is afterwards evacuated by the common emunctories,

ries, if in a moderate quantity, and is what forms the most perfect *ὑποστασις* in the urine. But if the quantity is very considerable, and the progress of the fever rapid, then phlegmons are formed, or certain deposits, to which Nature directs some part of the pus, and there evacuates it by an ulcer upon some of the external or internal surfaces of the body, which co-operates with the hypostasis in the urine.

As ulcers are frequently formed in or near vital organs, whose functions they may destroy, it is better to prevent this formation of phlegmons, and, early in the disease, to evacuate the offending matter, by the *open orifice of the vein*, (as Sydenham calls it) without waiting for coction and expulsion; of the success of which expedient, I have seen numberless instances.

This fever may be produced in vigorous, healthy people, young or old, at any season of the year, particularly in high and dry countries, where the people live much on bread and vegetables; but it is most frequent in this city, from Christmas to the month of June inclusive; that is, after the winter cold has subsisted long enough to brace the solids and condense the fluids of our bodies; and therefore, the most genuine inflammations, as well as the most violent,

violent, happen in the months of February and March ; particularly if the barometer is high, and the wind blows from any point between north-west and east ; consequently, all fevers of what species soever, which happen between Christmas and June, will be complicated with inflammation more or less, according to the idiosyncrasy, and other circumstances, and will require an antiphlogistic treatment in proportion. Hence we find, that the catarrhus fever, and the humorrhal fever, both happening during these five months, are partly inflammatory, and yield, in a great measure, to the antiphlogistic regimen ; nay, are sometimes cured by it, and always exasperated by an opposite treatment.

2. The humorrhal fever, or *synochus non putris* of the ancients, which Sydenham calls the most frequent of all fevers, the great fever of Nature, or the depuratory fever, may happen at different seasons of the year in some particular constitutions ; but we do not meet with it often till the day lengthens considerably, and the spring or vegetation is far advanced. Besides the inflammation which this fever has in common with the former fever, there is a fluxion of tough phlegm, which Nature deposits upon the stomach and bowels at this season, which must be evacuated ; so
that

that after the inflammatory part of the complaint is partly conquered by bleeding and cooling diet, the matter contained in the stomach and bowels must be evacuated as often as the symptoms of turgidity in either denote its existence.

This will often remove the whole ailment; but sometimes part of the morbid matter may remain, which requires a longer digestion in the vessels, and will not pass off properly, by any other outlet than the skin. There is indeed scarce any of the common fevers, in which kindly moderate sweats are, through the whole course, more beneficial; but if these sweats are promoted, before the sizziness of the blood is subdued, the inflammation will be exasperated; and if, before the turgid matter in the bowels is evacuated, the quantity of morbid matter will be attenuated and exalted; then reabsorbed, and mixed with the blood, so as to bring on an irregular, dangerous, and miliary fever, which, if the patient lives long enough, frequently terminates in a very bad kind of dysentery.

This fever remits almost from the beginning, and if properly treated, the remission becomes daily longer and longer, till at last it comes to a real intermission, or the disease goes quite off: it therefore greatly resembles some sorts of the spring
ague;

ague ; and all the spring fluxes partake of its nature.

When the fluxion of tough phlegm falls upon the bowels without a purging or considerable degree of fever, it occasions indigestion and obstruction, obstinate constipation, dry belly-ach, or jaundice, according to the idiosyncrasy of each individual : all these disorders are very frequent at this season, and having a similar cause with the fever, are cured nearly by the same means, as daily experience shews.

3. The other great spring complaint, is the catarrh, or a fluxion of thin acrid rheum on the *membrana sneideri* and lungs, attended with sneezing, coriza, angina, and cough. With respect to this fever also, two things are to be considered ; first, The degree of inflammation, and then the quantity and acrimony of the fluxion : this fever seldom happens before Christmas, most commonly in February, and gives rise to the true consumption, or *phthisis* of the lungs ; it is of a tedious nature, and frequently lasts to the end of June : during its course, it is sometimes complicated with the humorrhoidal fever, and relieved by the same vomits and purges necessary for that fever ; but when single, it has its natural crisis, chiefly by expectoration : nor does it require repeated vomits and purges, except there should be evident
signs

signs of turgid matter in the stomach or bowels.

But the fluxion of morbid matter upon the *membrana sneideri*, which happens in this fever, is not a true phlegmon that discharges pus; but rather resembles a phlegmonoides, which discharges a thin, acrid lymph; for which reason, perhaps, it has been found in some degree malignant and contagious to young people.

When a true peripneumony comes, after coction, to a plentiful spitting, the fever subsides every day, and the patient spits a thick, white, laudable pus, plain or streaked with blood, like that from the bursting of an imposthume; but in the catarrh, after frequent bleeding, and a cooling regimen, there comes on a vast discharge from the lungs and fauces, of a clear, acrid pituite, fretting and tickling wherever it touches, and the quickness of the pulse continues, notwithstanding the great discharge from the parts affected; so that acrimony seems to have a considerable share in this fever, and therefore many of those who are most subject to it, are also subject to heats, pimples, and tetters upon the skin, previous to the pulmonary complaint, and the return of these eruptions is a sign of recovery; many have brought on a catarrh by endeavouring to remove them. And here let me observe, that if a spring erysipelas, in a young person

son be repelled, a catarrh will also probably follow; whereas a dysentery, for the most part, will be the consequence of repelling an erysipelas in harvest.

To conduct the catarrh, during the violence of the inflammation, besides the common evacuations, the most thin diet is required; such as the juice of ripe fruit, barley-water, infusions of bread, of apples, and the like; but when the hardness of the pulse is abated, soft food, of the more nourishing kind, succeeds better; such as cucumbers, lettuce, all kinds of seeds, grain, bread, sweet roots, dry fruits, rennet-whey, and butter-milk. I have sometimes thought, that the bad practice, which does so much mischief in this disease, was owing to a notion, that it was of the same nature with the *peripneumonia notha* of the month of November; or rather with that cough and fever which Sydenham calls the winter fever.

Ignorant people having observed the great advantage of blisters in these complaints, have expected a like effect from them in the true catarrh, and have been much surprised to find, that, by a single blister unseasonably applied, which they thought at least an innocent remedy, they had exasperated both the inflammation and acrimony, to such a degree, as to render the catarrh almost incurable. But if these

diseases are compared, they soon appear to have opposite causes.

The *peripneumonia notha* is the disease of gross and bloated habits, after forty years of age, succeeds the bilious constitution, is complicated with the *humor atrabilarium*, and the lungs are loaded with a tough, viscid, cold phlegm, without much inflammation; whereas the catarrh is the disease of young, plethoric habits, under thirty years of age, succeeding the inflammatory constitution, and complicated with it, the *membrana sneideri* being inflamed as with an erysipelas, and discharging a thin, acrid lymph; so that every incisive medicine, which does good in the one, must do mischief in the other.

After many days, a digestion is performed in the vessels, as appears by the change in the urine; and the pus thus formed, is discharged by the common emunctories, and the expectoration of concocted matter; but if, instead of this, a large imposthume is formed on the lungs, and the pus is there deposited; or, if many small phlegmons, called tubercles, are formed on their internal surface, then the complaint changes its appearance, and an hectic fever is the consequence, which is attended with peculiar symptoms: first, Of the *vomica testis*, well known and described by authors: and, secondly, Of a real open ulcer,

ulcer, discharging pus, and difficult to be healed; owing partly to the structure of the lungs, partly to the perpetual motion, and continual contact with the open air, to which that part is necessarily exposed: hence arises the great difficulty, and almost impossibility of curing this disease in that stage.

But in most cases, when things are properly conducted, coction and crisis gradually come on, and the whole disease is totally conquered by the month of July, leaving only a weakness and relaxation of the compages of the lungs: this consequence of the disease is curable only by the same air, exercise, diet, and medicines, which are found to be most effectual in the *febris debilis et laxa*, viz. a dry, light air, riding on horseback, dry nourishing diet of the antiseptic kind; chalybeate-waters, bark, and cold bathing: all which ought to be persisted in during the months of August, September, October, November, and December, and so on to the end of the catarrhus constitution; it being necessary to use all possible means to harden the constitution, without producing a plethora; for without these precautions, relapses are, for the most part, certain in young people, and in our climate, as soon as the catarrhus constitution returns. But though strengthening remedies become necessary when the fever is totally subdued, to

prevent relapses, it must ever be remembered, that during the fever, they are pernicious, and that the air of Holland will then be more salutary than the air of Montpelier; but the most certain method I have yet been able to discover for preventing a relapse in this dangerous disease, is a residence in the West-India islands till the patient passes the age of twenty-five years.

4. These three constitutions, the inflammatory, humorrhoidal, and catarrhus, and the complications of them, include all the common distempers of the spring season: but after the summer is so far advanced as to have its full effect on the body; the solids are relaxed, the salts and oils are exalted, some of the more fluid parts of the blood are exhaled, and the remainder becomes more liable to that state, which the ancients called putrid; the serum of the blood becomes more yellow, the urine more loaded, the mouth more foul, and the pulse smaller: the secretion by the skin is more copious, the body is more costive, the desire of drink increases, and the appetite for solid food diminishes; people become more languid and indolent, and are apt to loiter in bed in the morning.

Hence arises a train of diseases, wholly different from the former; they are of a more putrid kind, not at all inflammatory in their own nature; and are preceded by the following symptoms: A propensity
to

to sweat upon the least motion, rank breath before eating, a foul mouth in the morning, a discharge of yellowish loaded urine, slight flying pains, and wind in the bowels, followed by little, foetid, acrid stools.

These are the harbingers of that fever which the ancients called *synochus putris*, or *typhus*, the *Τυφώδης πυρετός* of Hippocrates, which Sydenham calls the variolous fever; because he observed, that the constitution which produced it, promoted and exasperated the small-pox.

This is the only fever which we ought to distinguish by the name of putrid; the words *putrid fever*, of late years, have had no definite idea affixed to them; but are used to express every ill-conditioned fever, of what species soever it may be. If a strong, healthy, plethoric, young person is infected with an *angina maligna* in the month of February, he is said to have the putrid sore throat, though the *angina maligna* in such a person, and at such a season, is rather inflammatory than putrid: this mistake of terms must, of necessity, produce fatal errors in practice.

It is indeed true, that the plague, the small-pox, and the malignant angina, are greatly promoted and exasperated by the putrid constitution; and that each of them is more contagious, and more malignant, at the season of the year when it prevails,

than at any other ; consequently, they seem to partake of the nature of this constitution : but it is also true, that each of these diseases is frequently met with during the inflammatory constitution, and that they must not then be considered wholly as putrid diseases, but treated in a manner somewhat different from that which would be proper in the dog-days, and under the influence of the constitution which produces the *synochus putris*, or true putrid fever. The measles and whooping-cough are inflammatory diseases, and exasperated by the inflammatory constitution ; yet I have heard them called putrid.

When these *terrentia* have continued for some days, Nature frequently relieves herself by a spontaneous discharge of the morbid *colluvies*, upwards and downwards ; but more frequently it is found necessary to procure, or at least promote these evacuations ; for the solids being relaxed, and the nerves sluggish, they are often deficient for the purpose, and sometimes wholly wanting. If no spontaneous discharge takes place, and these complaints are neglected, a fixed pain and species of cramp in the pit of the stomach comes on, with a very considerable dejection of spirits, pain in the head and loins, some degree of horror, a quick depressed pulse ; clammy, profuse, colliquative, symptomatic sweats, which

which give no relief; and a discharge of turbid water, equally symptomatic and ineffectual. This is the true *synochus putris*, which is more or less dangerous, according to the manner of treating it.

Upon a comparison of this disease with the *synochus non putris*, the rise, progress, symptoms, and method of cure, will appear to be greatly different. The dejection of spirits in the *synochus non putris* is not so great, the cramp and pain in the pit of the stomach are not so common, the pulse is not so languid, the remissions are more perceptible, the urine is not so yellow, the tongue is not so foul and loaded, and the sweats in the beginning are neither so profuse nor foetid. After the first evacuations, the remissions are considerable; and when the proper treatment has been persisted in for the necessary time, the disease comes to coction and crisis by the skin all at once, or by repeated, regular fits, commonly at the end of nine, eleven, or fourteen days; but the *synochus putris* does not remit so much, and scarcely ever intermits at all; it does not require large and frequent bleedings, even if the blood should have a buffy appearance; because the disposition to inflammation is now nearly conquered, in the season which produces this fever; the serum of the blood is more yellow than common, and the botton of the *crassamentum* is gene-

rally of a loose texture, even when there is a buff on the top.

Plethoric people require bleeding in the beginning of all fevers, to prepare the way for vomits and purges; but, *ceteris paribus*, they require less bleeding in this fever than most others: the heat of a fever expands the blood, particularly in full plethoric habits, and they bear the shock of vomits and purges better, after losing a quantity of blood sufficient to take off the tension of the vessels.

The *synochus non putris* sets in like an inflammatory fever, and the signs of turgid matter in the stomach or bowels, do not usually appear at the very beginning; but in the *synochus putris*, the signs of turgid matter appear early.

During the first days of the *synochus non putris*, the patient is generally costive, and brisk emetics and cathartics are required to move the phlegm, and the second vomit generally brings up more of it than the first: but in the *synochus putris*, the matter is more easily moved; and it is not uncommon for a purging, or species of dysentery, to accompany the fever throughout; for which reason, Sydenham seems to have called it also a dysenteric fever; but it still required no other treatment, with this purging, than without.

There

Recapitulation.

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There is a similar difference between the spring cholic, and that which Sydenham calls the bilious cholic of the month of July and the dog-days; the spring cholic, partaking of the nature of the *synochus non putris*, is partly inflammatory, and consequently requires bleeding to a certain degree; and after stooping, bathing, and relaxing, brisk purges are necessary to evacuate the viscous phlegm, and to remove the obstruction; whereas in the bilious cholic, bleeding is not always necessary; and after proper stooping and bathing, soft purges are found sufficient to carry off the putrid colluvies.

A spring fever towards the conclusion, may require opiates and blisters; when well-treated from the beginning, it frequently lasts from nine to fourteen or twenty-one days: a spring fever ill-treated is always tedious, and may answer the description that hath been given of miliary fevers, flow fevers, nervous fevers, *febricula*, &c.; but a summer fever, well-treated from the beginning, never requires opiates or blisters; is frequently carried off in four days, and seldom exceeds nine: if ill-treated from the beginning, it easily becomes petechial, malignant, and often fatal in a few days; at other times very anomalous, apthous, and tedious.

5. The

5. The month of August changes the putrid constitution into the bilious, which is introduced by the *cholera morbus*: the fever attending this constitution, commonly called the bilious fever, is the same with the new fever of Sydenham, and the Lufanne fever of Tissot. This fever resembles the *synochus putris*, inasmuch as it seems to arise from an acrid, yellow, morbid matter in the blood, which cannot easily be carried off but by the bowels. There are, however, many particulars in which they differ, and in which the bilious fever resembles the *synochus non putris*; the remissions in the bilious fever are perceptible from the beginning; when properly treated, these remissions become longer and longer, and sometimes terminate in a true intermittent. After eleven or fourteen days, the bilious part of the disease being evacuated by vomiting and repeated purging, or corrected by proper regimen, a kind of coction and crisis come on by spontaneous perspiration during the night, in those hours in which the patient was accustomed to sleep when in health; and they are always known by the relief they give the succeeding day; insomuch that although sweating in the first days of the fever did not give relief, and therefore was rather to be checked than promoted, yet after eleven

or fourteen days, *pro re nata*, of vomiting, purging, and acids, it ought not to be checked; nay, the diet may be made more restorative, and mineral acids and wine added to it, which could not be granted till the grosser parts of the morbid *lentos* had been corrected and evacuated by the bowels. My diaphoretic, upon such occasions, is commonly camphor, *spir. mint.* mint-water, syrup of saffron, and calx of antimony. When the tongue has been quite clean, and the nights rather restless than burning, I have added a small quantity of opium to the night draught, with success: and this was the practice of Sydenham, when, after longer experience, he had observed, that neither opiates nor the bark succeeded, till after the fourteenth day. This perspiration, however, must not be promoted through the day; but the patient must be taken out of bed every day before noon.

The putrid fever frequently requires the roughest and most coagulating acids; but the bilious fever agrees best with the saponaceous acids from the beginning to the end; such as the juice of ripe fruit, common oxymel, and the like; which, in my opinion, are the most universal of all remedies in common fevers. I have known some delicate young people, subject to acids in the first passages, who could not bear
honey,

honey, sugar, fruit, or oxymel, for many years, and were, for that reason, obliged to live chiefly on animal food, old cheese, and even meat a little tainted; and yet these very persons, after they were advanced in life, or had their constitutions altered by fevers, could eat honey, fruit, and oxymel, and live on four butter-milk, without any inconveniency.

Were I to indulge my fancy, I should be apt to say, that the heat of summer melted down the tough phlegm of the spring, into the acrid, yellow matter of the *synochus putris*; and that a diet of animal food and hot regimen, during the humorrhal constitution, might do something of the same sort; but that the sharp long evenings of the harvest season partly correct the morbid disposition of the humours arising from the heat of summer and the dog-days, and bring them back, in some degree, to what they had been during the preceding spring; only more yellow, more acrid, and indeed more animalized; so that if a phlegmatic or humorrhal fever is supposed to be complicated with a *synochus putris*, it will give us some idea of a bilious fever, and the manner of conducting it.

The bilious epidemic constitution then consists of the *cholera morbus*, the bilious dysentery, the bilious fever, and the bilious

ous erysipelas: these diseases are contemporary, or nearly so; and therefore may be said to compose the harvest constitution, especially if the ague is taken into the account: But, in looking over my journals, I observe, that the erysipelas was most frequent about the very beginning of the spring constitution, *i. e.* during the catarrhus disposition; whereas, in harvest, the erysipelas was most frequent towards the close of the bilious constitution, when the *humor atrabilarius* began to shew itself; so that I am at a loss whether to call the harvest erysipelas a bilious, or atra bilious disease.

Sydenham compared the erysipelas to the pestilential fever; first, Because it is sometimes very rife: secondly, The nerves are strangely affected before the eruption: thirdly, After bleeding, *pro re nata*, it agrees with diaphoretic treatment for forty-eight hours: fourthly, After which it yields to purging and an antiseptic regimen. It cannot, however, be called pestilential; for although it bears a treatment partly similar to that which agrees with the pestilential fever, and resembles it in some of the first symptoms, yet it never is contagious, as far as I can observe. It must, however, be remembered, that the harvest erysipelas differs essentially from the spring, and requires a different treatment,

ment, inasmuch as that is complicated with bile, and this with inflammation.

6. After the bilious fever subsides, symptoms of the atra bilious constitution appear. These diseases are frequently without any regular fever, and in that case, the pulse is rather more slow than in health, and below the natural standard; the spirits are dejected, the sleep disturbed, the belly flatulent and obstructed, the tongue foul in the morning, but without any preternatural heat or thirst. The constitution called atra bilious is the true cause of the *morbis hypochondriacus cum materia*, and the *mæstitia sine causa* in men, and of one species of the *morbis hystericus* in women: to dilute and evacuate the morbid matter of this constitution, is always a difficult and tedious work, when neither cough, or fever, or piles, or gout, or eruption, attend it; and it is easily exasperated by bad treatment, and improper regimen. It frequently produces various eruptions on the skin; such as *guttæ rosacæ*, *impetigo*, *herpes*, *lichen*, and the like; which, if they come out plentifully, give some relief, but do not effect a radical cure of the disease: nor can they be properly cured themselves, till the *humor atrabilarius* is attenuated, diluted, and evacuated. When this constitution is accompanied with a fever, this fever is, for the most part, lingering and tedious,

ous, even if properly and patiently conducted; but may prove mortal, if an attempt is made to remove the spasmodic complaints by those medicines which are called hystERIC and antispasmodic: sometimes it occasions a cholic not unlike the *cholera morbus*, or rather the bilious cholic, which, because of the frequency of its returns, is often imputed to spasm, gall-stones, and the like. This cholic is not difficult to remove, but cannot be radically cured, so as not to return, without a long course of deobstruent diet and medicine.

The coughs of the beginning of winter are frequently complicated with this epidemic constitution, and together produce the *peripneumonia notha* of Sydenham: this *peripneumonia* is more immediately dangerous than the other atra bilious diseases, but of shorter duration than many of them; for the exercise of coughing, and the discharge of phlegm by expectoration, facilitate the expulsion of the *humor atrabilarius*, which entangled the blood and obstructed the bowels. The *peripneumonia notha*, properly treated from the beginning, seldom exceeds forty days; whereas some of the other atra bilious diseases are very tedious. I have known two years spent upon some of them before the cure has been complete, although the patients kept to a regular course of deobstruent diet and medicine;

medicine; and some of them passed six weeks, in the summer months, drinking the waters at Cheltenham, and six weeks more drinking and bathing in the sea-water: at last, however, they all recovered.

I have seen an ague in some, and an eruption of a species of *herpes* in others, forward the operation of the deobstruent medicines. To these diseases little attention was paid; the same diet and deobstruents which preceded them were continued, except that for the *herpes*, Huxham's essence of antimony was added, with drinking and bathing in the sea-water; and for the ague, change of air and exercise were recommended.

The atra bilious constitution continues all the months of November, December, and January, in very open winters, (as was the case in 1769,) and being complicated with the inflammatory diseases of that season, it renders the cure of them much more difficult and tedious than they commonly are when the weather is frosty and dry: hence Sydenham observes, that in open winters, the genuine inflammations were not frequent before the month of March. The species of fever which is produced by the influence of the atra bilious constitution, on diseases of the inflammatory kind, Sydenham has hinted at
under

under the name of *winter fever*; it deserves great attention, because the manner of treating it differs from that which is proper in a genuine inflammation. The distinguishing symptoms are as follow: in the genuine inflammations, the tongue is white; the urine of a flame colour, and does not become muddy when cold, before coction begins; after the first rigour is over, the eyes sparkle; the face is flushed, and most commonly the skin also; but when an *atra bilious* diathesis is superadded, the tongue is yellowish and loaded; the water is muddy and *jumentosa* in the very beginning; the countenance is embarrassed; the spirits dejected; and for most part, there is a cough and wheezing.

When the inflammation is single, the relief from bleeding is sudden and permanent: vomits are not required, and indeed ought not to be administered; nor any other purges than such as are soft, and do not irritate to a considerable degree; but when the inflammation is complicated with the *humor atrabilarius*, the bleeding gives present relief, but the symptoms of repletion in the head, or turgid matter in the bowels, soon appear, and require purges, or perhaps vomits, before they can be removed. The great repletion and pain of the head, and some degree of cough, or difficulty of breathing, indicate something more than

H h

inflam-

inflammation, if they are not greatly relieved by bleeding only.

An atra bilious inflammatory fever of the slight kind, - after proper bleeding, purging, and vomiting, will frequently give way in a few days, if these evacuations have been instituted early ; but, generally speaking, it lasts twenty-one days, if the degree of pulse and heat have been continued long enough to breed a considerable quantity of phlogistic lentor ; so that very fizy blood, of the colour of foul tallow, portends a tedious fever. However, if the symptoms are not violent, it is better to wait patiently, than endeavour suddenly to stop its natural progress by any drug. I have frequently seen the attempt made, and the fever has always become ill-conditioned, without being shortened ; whereas, when the pressing symptoms were well attended to, and nothing violent has been attempted, the fever indeed has frequently been tedious, but the patient's recovery has at last been perfect ; for, on or before the twenty-first day, the fever subsided, and nothing remained but a cough, and critical salutary expectoration of thick digested matter. This fever also remits soon after the first evacuations, and sometimes terminates in an ague, which rarely happens in genuine inflammations : these always proceed to perfect coction, and come to some crisis

crisis in a short time, without any considerable, regular, lasting remission, except what may have arisen from evacuations during the crude state; but the mixed fevers remit sensibly and early.

7. The last of the common fevers is the ague, which seems to have its seat in the large bowels; we seldom meet with agues during the height of either the inflammatory, or the putrid constitutions; but they are very frequent in spring, during the phlegmatic constitution, and during the bilious and atra bilious constitutions of the latter season; when the colluvies collected in the stomach and intestines obstructs the excretions of the *viscera* of the *abdomen*. The agues of the spring almost always give way to the month of July; perhaps, because the phlegm being attenuated, does not at that season so much obstruct those excretions.

The agues of the bilious constitution, if they are stopped before the bilious morbid lentor is evacuated, bring on a continual fever, in the same manner as the spring agues, when they are stopped before the phlegm or pituite is removed: but after the phlegm is evacuated in spring, or the bilious matter in harvest, the ague will commonly yield to the bark, given in a proper quantity between the fits.

The ague complicated with the *humor atrabilarius* ; that is, with a morbid lentor of a more viscid nature than bile ; more remote, and more out of the reach of evacuating medicines, requires more patience, and is, for that reason, more difficult to manage ; for while the *viscera* are thus obstructed, the bark and tonic medicines will seldom cure the ague ; they may indeed sometimes stop it and confirm the obstruction, or drive the *humor atrabilarius* all over the body, so as to breed various chronic distempers, or give that wax-like colour (so well known) to the skin : but if these medicines stop the ague under such circumstances, it is generally but for a few days ; after which, it often returns with double violence. In this case, it should always be remembered, that the original cause of such an ague, is the *humor atrabilarius*, which always occasions a tedious disease, hardly ever lasting less than forty days, and frequently many months. That with respect to the ague, nothing more should be done than to moderate the violence of the fits, and to support the patient properly on the days of interval, and that the diet, exercise, and remedies should be directed wholly to attenuate, dilute, and evacuate the atra bilious lentor, as if the ague were out of the question.

From this practice two advantages will arise; first, The life of the patient will not be endangered, in most cases, even if the ague should go on to the month of July following: secondly, When the atra bilious lentor has been corrected or evacuated, which the repeated fits of the ague will facilitate, the ague will probably stop of itself radically, and without any danger of a relapse, or easily give way to the specific in a short time, and with propriety.

A true ague is to be distinguished from every other fever by two symptoms; first, The *frigus*, *rigor*, and *horror febrilis*, at the beginning of every fit: and, secondly, An absolute apyrexia between the fits, which do not happen either in the *hectica purulenta*, nor in the disease which Boerhaave used to call the *hectica Anglicana*.

There is indeed one species of intermittent which greatly resembles an ague, viz. the *hemicrania*, or megrim commonly called an ague in the head, or rather in the face; a disease, which, though most frequent in spring, appears at different seasons; and consequently, in some degree, requires a different method of cure. This, perhaps, is one reason why what has succeeded in one case, has often been found to fail in others. A true *hemicrania* is regularly periodical, and attended by no other fever than that which arises from

the violence of the pain; so that it is easily distinguished from other chronic, nervous, and hysteric headaches, which are less regular; and from such pains as arise from an incongruity of the solid parts, and from such as accompany continual remitting or intermitting fevers.

These things being well explained, it will be more easy to understand the history of the true, malignant, and contagious fevers, to account for the variety of symptoms observable in them, and to ascertain the best manner of treating them,

RECEIPTS *which I generally use in*
COMMON FEVERS.

No. I. The *emetico-catharticum* of Tissot.

R *Tart. emet.* gr. iſs.

Man. opt. ℥i.

Aq. fervid. lb. i. *ſolve et ſigna.*

A gill to be taken every half-hour till it operates by vomit or ſtool,

A common vomit.

R *Vin. ipecacuan.* ℥i.

Vin. antimon. ℥ſs. m. f. *hauſtus.*

A vomit *en lavage.*

R *Tart. emet.* gr. iv.

Aq. fervid. lb. v. *ſolve et ſigna.*

A pint to be taken blood-warm, and repeated as often as may be required to clean the ſtomach.

No. II. Stork's mixture for clearing the bowels of worms and viſcid phlegm.

R *Sal. polychreſt.*

Pulv. jalap.

— *valerian. ſylveſtr.* āā ℥i.

Oxymell. ſcillit. ℥iv. m. *et ſigna.*

A table-spoonful to be taken morning, noon, and night, for some days together, till the purpose is answered. A tea-spoonful may be given to a child.

No. III. Van Swieten's opium mixture for the *cholera*.

℞ *Aq. bord.* ℥viiij.
Extract. thebaic. gr. iij.
Lapid. cancror. ℥iss.
Aq. cinnamom. ten. ℥i,
Syr. diacod. ℥iss. *m. et signa.*

A table-spoonful to be taken every eight or ten minutes till the vomiting stops.

No. IV. To procure passage in the dry belly-ach, or *colica Piſtonum*, or *Piſtorum*, or *Devo-nienſis*.

℞ *Sacchar. alb.*
Tinct. jalap. pharm. Lond. āā ℥i, *tere simul*
et adde.
Man. opt.
Ol. ricin. American. āā ℥i.
Syr. solut. q. s. f. linctus. *Signa.*

Two tea-spoonfuls to be taken every half hour; drinking over it one table spoonful of the following mixture, No. V. till a purging comes on.

No. V.

℞ *Sal. cathar. amar. (vel sal. Rochel.)* ℥i,
Aq. menth. piper. ℥vi. *m. signa.*

A table-

A table-spoonful to be taken every half-hour till a purging comes on; after which the following emulsion will suffice to keep it up till the symptoms subside.

℞ *Man. opt.* ℥iss.

Tart. solub. ℥ss.

Amygd. dulc. decort. No. XVI.

Contunde simul optime, dein paulatim adde

Aq. rosar. ℥xij.

Suc. limon (vel suc. aurant. civil.) ℥ii. *f. emul-*
sio, cola & signa.

A tea-cupful to be taken frequently, so as to keep the body open.

No. VI. Van Swieten's deobstruent mixture.

℞ *Oxymell. scillit.* ℥ij.

Sal. polychrest. ℥ij.

— *tart. vitriol.* ℥i.

Aq. fontan. ℥viiij.

— *menth. spirit.* ℥i. *m. & signa.*

Four table-spoonfuls to be taken every three or four hours, in proportion to its effect, drinking over it a gill of the following decoction :

℞ *Rad. recent. graminis,* ℥viiij.

— *taraxaci cum toto,* ℥iv.

Aq. fontan. lb. ijs.

Coque per semihoram, et colaturæ adde

Mell. opt. ℥iiij. *m. & exhibe.*

No. VII.

No. VII. To keep the body regular after the obstructions are removed in common cholics.

R Sapon. Venet. ℥ss.

Rhei elect. ʒi.

Syr. de cichor. cum rheo q. s. f. pilulæ No. lx.
signa.

Five to be taken night and morning: But in atra bilious habits, the following is better.

R Sapon. Venet.

Sal. polychrest.

Rhei elect.

Aloes puriss.

Extract. flor. chamam. āā ʒi.

Ol. stillat. flor. chamam. gut. xij.

Elix. aloes q. s. f. massa dividenda in pilulas
mediocres, signa.

Three or four to be taken every night to keep the body regularly open in November and December.

An effectual purge for tough phlegm or black bile, when turgid in the lower belly.

R Sal. polychrest. ʒss.

Crem. tart.

Pulv. jalap. āā ʒi. m. f. pulvis.

No. VIII. The purging pilsanne nearly of Sydenham.

R Tamarind. ʒiss.

Aq. font. ʒxij.

Tart. solub. ʒss.

Coque

Coque ad solutionem, et colaturæ adhuc fervidæ adde

Man. opt. ℥iſs.

Tinct. ſen. ℥i. f. miſtura et ſigna.

Six table ſpoonfuls to be taken every hour till it purges properly.

No. IX. A ſtrengthening purge, after fevers, of Tiſſot.

R Rhei elect.

Cremor. tart. āā ʒij.

Sacchar. ʒi. tere, ſimul et adde

Aq. puleg. ℥ij. m. f. hauſtus, ſigna.

To be taken going to reſt.

A ſtrengthening ſubaſtringent electuary after fluxes.

R Conſerv. menth.

Miv. cydon. āā ℥iſs.

Rad. Helenii condit. ℥ſs.

— rhabarb. ver. ʒi. m. f. electuar. ſigna.

The bigness of a nutmeg to be taken morning, noon, and night,

No. X. Van Swieten's clyſter for the excoriation of the *rectum* after the dysentery.

R Terebintb. ʒi.

Vitell. ov. No. I. ſolve et adde,

Theriac. ℥ſs.

Lact. recentis ℥v. m. f. enema, ſigna.

To be injected blood-warm, every night going to reſt.

No. XI. The common antiseptic draught.

℞ *Suc. limon.* ℥ss.*Aq. mentb. simpl.* ℥i.*Syr. e cort. aurant.* ℥i. m. f. *haustus, signa.*

To be taken every three, four, five, or six hours.

The antiseptic mixture of Stork.

℞ *Aq. flor. rhæad.* lb. i.*Syr. diacod.* ℥i.*Spir. sulphur. per camp.* ℥i. f. *mistura, signa.*

A table-spoonful to be taken every other hour.

N. B. In cases of great lowness, I add, to each of these, some camphor well dissolved, with almonds, and diluted with peppermint-water.

No. XII. The diaphoretic draught.

℞ *Julep. e camphor.**Spir. minder.* āā ℥iij.*Aq. mentb. simpl.* ℥i. *calc. antim. illot. gr. x.**Syr. croc.* ℥iiss. m. f. *haustus, signa.*

To be taken every four hours; and to the night-draught I frequently add from ten to fifteen or twenty drops of laudanum,

℞ *Pulv. contrayerv. compos.**Confect. cardiac.* āā ℥i.*Aq. alexit. simpl.* ℥i.*Spir. minder.* ℥ss.*Syr. croc.* ℥iiss. m. f. *haustus, signa.*

To

To be taken as the former, when heat is wanting.

No. XIII. Tiffot's antiseptic mixture.

℞ *Syr. violar.* ℥ij.

Spir. sal. marin. ℥ij. *m. signa.*

To sharpen all the drink with some of this mixture.

No. XIV. A diaphoretic decoction of the bark.

℞ *Pulv. cort. Peruv.* ℥i.

Balsam. Tolutan. ℥i.

Aq. fontan. lb. ii.

Coque ad lb. i. et colaturæ adde

Confect. alkerm. ℥i. *m. signa.*

Three or four table-spoonfuls to be taken every four, five, or six hours.

No. XV. Rutherford's deobstruent pills.

℞ *Extract. fuligin.*

Sapon. Venet. āā ℥iij.

Gum. ammoniac. ℥iiss.

Aloes succotrin. ℥i.

Syr. simpl. q. s. f. pilulæ, gr. v. singulæ, signa.

Three to be taken every six hours, drinking over them six spoonfuls of the following decoction :

No. XVI.

No. XVI.

R Summit. centaur. min.
 — absynth. vulgar.
 — rut. āā m. i.

Coque parum in aq. fontan. lb. iij.
 Addendo sub finem coctionis.

Sem. carv.
 — anis. āā ʒiij. f. colatura.

No. XVII. Van Swieten's mixture for the ague.

R Sal. polychrest. ʒij.
 — tart. vitriol. ʒi.
 Aq. bord. ʒviij.
 — cort. citr. ʒij. f. mistura, signa.

A spoonful to be taken every two hours.

No. XVIII. Lecat's electuary.

R Pulv. cort. Peruv. ʒij.
 Theriac. androm. ʒss.
 Sal. absynth. ʒij.
 Rhei, ʒi.
 Syr. croc. q. s. f. electuar. signa.

The bigness of a nutmeg to be taken every three, four, five, or six hours, &c.

N. B. The original prescription is compounded with the *syrup. longæ vitæ* of the Paris Dispensatory.

No. XIX.

No. XIX. The *decoctum nitrosum* of the Edinburgh Dispensatory, is a good way of giving *Nitre*, from three to ten spoonfuls frequently, either by itself, or mixed with other medicines, or the common drink.

No. XX. The electuary for the *hemicrania*.

R *Pulv. rad. valerian. sylvestr.* ℥ij.

—— *cort. Peruv.* ℥iss.

Sal. vol. c. c. ℥ij.

Syr. croc. q. s. f. electuar. signa.

To be taken as directed in its place.

F I N I S

